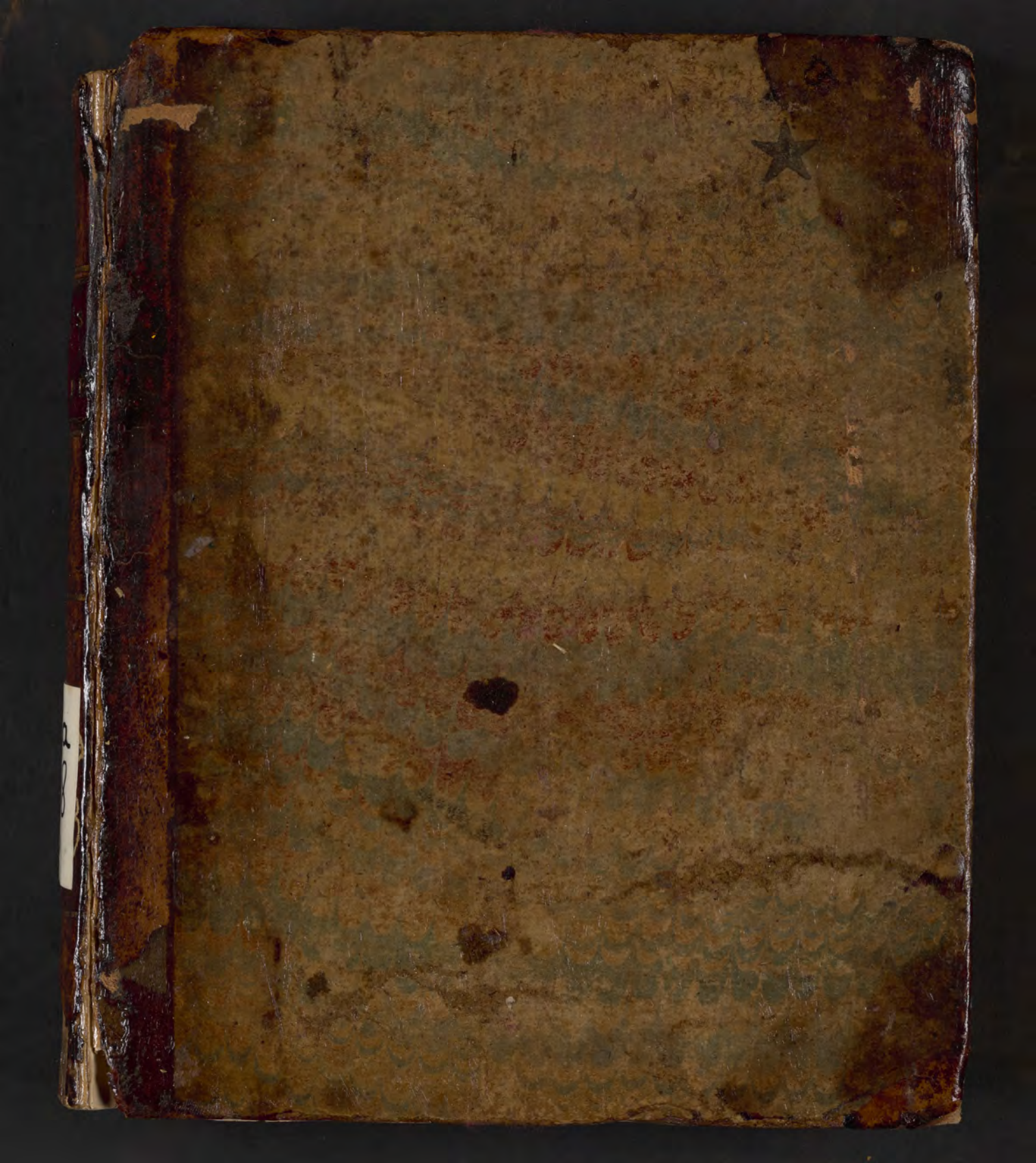

Joseph G. Stephen

orbicularis oris

Depressor labii Inferioris

Levator " " Superioris

Deltoid

Stomach

Return to Dr. Joseph Thompson
No. 227 Spruce St
Philadelphia
Oct 28/85

Pathology. —

Gentlemen

Hitherto we have considered the living body in a healthy state; such as divines considered man before his fall, but now we will consider him in an imperfect or diseased state. Sickness & death as Moral evil are the consequences of the forfeiture of primoval innocence, which as soon as lost, was followed by these effects. Every element in Nature took a part with the Creator & conspired with him against man. Their action however at first was feeble & slow, as we find by the age of some who almost reached 1000 years; & it was not till after the Deluge that the life of man was contracted to the present age; the influence of which together with the Atmosphere conspired to produce. That life is a forced state is no less convorant to Religion than to true Philosophy. Life consists in a Strife or

or a temporary victory over causes which tend to induce death. Let us not suppose that the Creator delights in the Misery of his creatures; so far from this being the case that all diseases are blessings in disguise. They are necessary to our general good & happiness, they are of important uses; they naturally lead us to the Study of subjects highly important to the human race. Disease first rendered it necessary for man to undertake the Study of Anatomy. 2° This leads us to a knowledge of Physiology 3° It leads us to the Study of Nature & the Animal vegetable & fossil kingdoms, without wh the works of nature would remain unexplored & unadmired. 4th It leads us to the Study of the Human mind; affords & furnishes exercise for our Moral faculties, for without diseases there would be no benevolence or charity Neither would there be an hospitals to relieve the indigent. — 5

6th As darkness gives charms to light, in like manner is disease necessary to impart a relish for health. 7th It serves to increase our Moral virtue, for Many owe their virtue to a Spell of sickness & 8th It reconciles us to death & induces us

to console ourselves under afflictions for the loss of our friends. On entering upon Pathology I am without a guide. Boerhaave's notions & observations are short & not suited to the present improved state of Medicine. Gaubius attempts to bring it into a system, but it is so full of the humoral doctrine, that it is of little service to students of the present day.—

Pathology treats of the causes, seats & signs of diseases. The different causes of disease may be divided into 4 — 1st Remote — 2° Predisposing 3° Occasional or exciting — 4th Proximate (or Morbus ipse) They are all links of one chain: For instance in an inflamat.y fever — 1st Cold is the remote cause 2° The debility produced by the Cold is the predisposing cause 3° Heat, as of a stove room or the vernal sun the occasional or exciting cause & 4th — The Convulsive or Morbid action of the arterial System the Proximate cause. By the Proximate cause I mean the Morbus ipse of Gaubius or the disease itself.—

1st General Proposition — Debility is the predisposing cause of all diseases, whether it be natural

natural or acquired: By natural debility I mean a Predisposition to disease brought into the world with us. This debility is always attended with more or less irritability.—

Predisposition to disease is acquired in Infancy, Youth, Adult life & in old age, in a great variety of ways all which shall be taken particular notice of hereafter.— It is acquired in Infancy & childhood, by injuries at the time of birth— by the custom of washing the tender skin of infants with ardent Spts— by aliments of an unwholesome quality, or excessive in quantity; by the passions of Nurses & Mothers; by improper methods of dressing; By Opium Ardent Spts &c being given to children, than wh nothing is more injurious; by premature application of the mind to Study, particularly such studies as are disproportioned to the faculties of a child, as Grammar, Dead Languages &c. By confinement to close schoolrooms without exercise, enveloped by azotic air for 6 or 7 hours every day, to wh may be added the despotism of Schoolmasters.— By falls & other accidents, by

by children being lifted up by the heels hair of the head &c by their being violently shaken by angry Mothers & Nurses &c &c

Debility whether Natural or acquired when it occupies any particular part of the body has been called a Temperament. The Temperaments as devided by the Ancients are four viz The Sanguineous, Bilious, Phlegmatic, & Melancholic. But I object to the term Temperament as conveying no definite meaning, & I adopt in its stead the word, Predisposition by which I mean, a preternatural aptitude to disease in any particular part of the body founded on debility either native or acquired, & attended with preternatural excitability. By excitability I understand A capacity of being acted upon by Stimuli. Debility is seldom general, but occupying for the most part but one system of the body, & predisposing it to disease.

Predispositions are divided into Nine.

1 Arterial - { Pulmonic or Aortic - Uterine -
2 Hepatic
3 Nervous

4" Muscular
5" Cephalic
6" Phrenitic
7" Alimentary } consisting of the
8" Lymphatic & } Gastritic & intestinal
9" Cutaneous. —

The Arterial Predisposition is subdivided into Aortic, Pulmonary & Uterine, & predisposes to acute diseases especially in warm Climates; there is an excess of blood &c

Hepatic - Persons of hepatic Predisposition are said to have livers preternaturally large, that secrete a preternatural quantity of bile - exist most frequently in warm climates, & in Autumn. Discovers itself by aptitude to Diarrhoea Colic &c

Nervous Predisposition discovers itself by a susceptibility of being violently acted upon by the slightest corporeal & Mental impressions - Persons of this predisposition are subject to Hypochondriasis & Hysteria - they are happy & Miserable half a dozen times a day.

Muscular Predisposition is known by little sensibility & great irritability in the Muscular fibre

fibre – Persons of this Predisposition are disposed to active employments & dislike confinement if necessity compels them to sit in one place their hands, feet & head are continually in motion, they walk fast, ride swiftly, & may be said to repose only in activity; they may be said to be all muscles. –

Cephalic Predisposition is attended with aptitude to head ache, Vertigo, Apoplexy, & Palsy – it differs from the Phrenitic in occupying the inferior or lowest part of the head. –

Phrenitic differs from the Cephalic in occupying the Superior part of the Brain & discovers itself in early life by an uncommon aptitude to acquire knowledge; quick perception &c, is attended with great aptitude to become delirious from the Slightest fever. Persons of this Predisposition may be said to be all mind

Alimentary Predisposition is divided into Gastric & Intestinal, because the Stomach is often very excitable with healthy bowels & vice versa.

Lymphatic Predisposition. The Lymphatics perform their office with undue celerity and

& force.—

Cutaneous Predisposition discovers itself in the facility with which itching, redness, Eruptions &c are excited upon the skin from the slightest causes — in great difficulty of healing external wounds, Sores &c

3. Some one or more of these Predispositions is present in every person — There is scarcely any person but what has some weak part about him. Perfect health is as rare as Perfect virtue or Perfect Reason. Predisposition is not always seperate or confined to one System. They are combined in various ways. 4 The Hepatic & Alimentary are often united — Nervous Muscular & Cephalic in persons subject to Epilepsy. The Nervous & Cephalic are often blended. Nervous & Arterial sometimes combined in Hysteric persons. Predisposition vary in different periods of life, & in different seasons of the year — thus the alimentary prevails in early life, Arterial & Hepatic in Middle life & Cephalic in old age. The Arterial Predominates in Spring, Hepatic in Summer, Nervous in Autumn. Predisposition often descends from

from father to Son, but are mixed changed or lost by intermarriages with Strangers. Some Nations lose their predispositions by the intermixture of Strangers. Weakness in one part is commonly attended with Preternatural Strength in others. The same remote causes act very differently in persons of different predispositions persons of the same age with the same exercise & on the same day may be taken with different diseases, according as the different predispositions predispose to different affections. Same Medicines produce different effects, the same Epidemic appears with different symptoms. This difference of Predisposition explains the reason why the Gout attacks such opposite parts of the body, for the weakest part constantly attracts disease. Lord Cornwallis used to say he could always tell the weakest part of his Camp by General Lee's always being sure to attack the weakest part. A Man may tell wh is the weakest part about him by the same means for disease will attack that part. Relief has been given to many disorders by the cessation of Predisposition from want of

Irritability

* Healthy excitement may be placed at 50 this is kept up by the stimuli wh support life already enumerated. If part of these stimuli are suddenly abstracted the excitement will come down to 40, then being at the same time an accumulation of excitability. This is the debility of abstraction. If the number or force of stimuli be suddenly increased the excitement first rises to 60 & then descends to 40 carrying along with it suffocating excitement. This is the debility from action. Debility for both its causes occurs more readily in children & in old people, & in the middle of the night, in the morning & evening. * Debility admits of considerable range & does not always end in disease. Elevated excitement is the usual premonitory sign of Disease. If the causes of debility continue to act long, or their force or number is increased, depression will take place. The signs of depression are coldness heaviness, weariness depression of spirits, contraction & paleness of the skin. + Debility has considerable range say from 40 to 60, but there is only a cobwel partition between depression & disease. Depression forbids action & calls for repose abstinence &c. The Electric rod does not more certainly attract lightning than debility invites to depression, & depression to disease. Debility & depression do not always exist in a seperate state, they are often combined both existing at the same time in different parts of the body. Accession of a stimulus necessary to the production of disease. A loss of Equilibrium as when first falling a sleep &c are sometimes sufficient to

excitability through the influence of time on the disorder when excitement is below what is natural. *

* I have said that debility is the predisposing cause of all diseases; for further observations on this head see the 1st Vol: of my Inquiries. —

2° Debility is followed by an increase of excitability — 3° Debility whether local or general invites to morbid action & in this consists disease, for the Electric rod does not more certainly invite, or attract the electric fluid, than debility invites to depression & depression to disease. 4th Disease I have said consists in morbid excitement, or convulsive or morbid action of the arterial System, but not in its excessive action — Exercise may produce excessive but not morbid action or disease, as in running jumping dancing &c. In Morbid excitement nature is driven from the helm & the functions of the body are performed with difficulty 5th Diseases are always partial, I know of no disease which invades every part of the System; in fever it is confined to the bloodvessels; in Mania to the Brain; in Dysentery to the Intestines

to produce it Soldiers & Sailors &c escape disease while they labour constantly. Physicians seldom sicken till patients begin to get well & A sudden accumulation of excitability is prevented after violent exercise by abstracting it gradually. When stimuli are continued so long as to induce debility, obstructions &c may occur without disease & this may be termed disorder

*: Disorders are morbid affections in different parts of the body &c &c disorders are most common in Southern Climates. Chronic obstructions of all kinds are disorders. disorders are many, disease an unit

2d General Proposition All the remote & exciting causes of disease however diversified are an unit, all included under the name of Stimulus, the diseases produced by them the same, just as fire is the same whether generated by friction, percussion, Detonation, Electricity &c

3d General Proposition Disease when excited consists in morbid excitement or irregular action in wt nature is driven fr the helm & the functions of the body are performed with difficulty. Excitement may be excessive & not morbid, as in the excessive or elevated excitement produced by running, dancing or any violent exercise. Disease is often combined with the remains of depression & sometimes of predisposing debility. The remote & exciting causes of disease are often blended together & act at the same time also the exciting & predisposing. Disease is either obvious or sensible, or it is suffocated. Reaction is the effect partly of the elasticity of the Muscular fibre Morb: ex: is often greatly disproportioned to

cause

times, in Tetanus to the Muscles &c. The art of healing therefore consists in equalizing the excitement of the System; & not in removing debility only, as Dr Brown has taught. —

The remote & exciting causes of disease are often blended together, & act at the same time; also the exciting & predisposing. A cause may be remote predisposing, & exciting or occasional at the same time. All diseases depend upon predisposing debility which is of 2 kinds, viz direct & indirect according to Dr Brown, but I prefer the terms Debility from Abstraction & Debility from action. As an illustration we will fix the healthy point at 50 upon a Scale, a range of 10 above or 10 below this healthy point of action is a predisposition to disease. —

When Stimuli are continued so long as to induce debility, obstructions &c may be produced without disease; & this may be termed disorder. * Disorders are morbid affections in different parts of the body, in which there is a want or expenditure of excitability with a want of sensibility & irritability, it occurs in the forms of

stupor

cause suffocated excitement — Suffocated excitement includes prostration & depression — Discovers itself by wakefulness flushed countenance Yellowness or redness of the eyes, pulse Natural — It may be converted into obvious disease by &c.

4th General Proposition. Morb: excitement or disease is always partial, I know of no disease wh invades every part of the system — Thus in fever it is chiefly confined to the Bloodvessels; in Mania, to the Brain; in Tetanus to the Muscles, & in Dysentery to the Intestines. Absence of excitement in some one part seems necessary to a morbid accumulation of it in another —

* 5th & last General Proposition. There is but one fever one disease &c &c — —

It is immaterial where situated or however varied by texture, still I contend for the Unity of disease — Obstructions & Schirrus of the Liver are effects of disease & not disease — All disorders are confined to cases where Morb excitement has ceased, or was never excited, Disorders are Many, disease but one — Many persons die of debility & disorder without disease. When disease is present the whole system is more or less deranged by it. There is preternatural excitement without excitability, & excitability without excitement — Old associations are discovered & destroyed — The system affected by disease may be compared to a Ship in a Storm at Sea — Nature is driven from the Helm & every thing is thrown out of its natural situation — the functions of the body are performed with difficulty —

and obstructions of all kinds.

Stupor Torpor * Inertia, & is occasioned by the force & number of Stimuli being so great as suddenly to destroy excitability, & thus prevent disease. Debility an Unit - Depression likewise an Unit. Absence of necessary for the accumulation of Morbid excitement. There are frequently days weeks & even years between debility & the Morbid excitement produced by it. —

* There is but one fever, one disease throughout the whole world & all the forms of it are produced by Morbid excitement, or irregular action in # the arterial system. There is but one sin & that is Self Love - Adam was affected by debility in his will when he ate of the forbidden fruit. We see storms with & without clouds, with & without hail &c Now storms are an Unit, they arise only from one cause - Morbid excitement in the Atmosphere. - You will see that I differ from Brown in my Principles. Brown makes debility a disease, I make it the cause of disease or rather one of the causes of disease. —

Disease may be compared to a Ladder ascending & descending by the following steps 1st

+ from disease

1st Elevated Ordinary excitement
2d Debility or Predisposition
3d Preternatural accumulation of Excitability
4th Depression
5th Action of an exciting cause or an Irritant.
6th Disease
7th Oppression or suffocated excitement.
8th Prostration below the point of reaction.
9th Disorders or effects of disease.
10th & lastly debility. This is the usual order, but there are many exceptions. Sometimes remote causes leap over debility & depression, & directly induce disease, Sometimes they overleap disease & produce disorders. Remote causes are sometimes so violent as to leap over all the intermediate steps & inducing sudden death. We sometimes see debility, depression, oppression, disease, disorder, & Death all at the same time occupying different parts of the System. Inflammat^n (not as Hunter supposes the highest grade of disease) is the effect of disease & only takes place when morbid excitement is moderate. Death often occurs without inflammation as in violent fevers that

* Occurs in fevers Parturition &c

that kill immediately. They kill by the immense force of the remote cause, extinguishing life without giving time for the production of disease. — Death often occurs from Hydrocephalus Internus & Apoplexy without any inflammation discoverable on dissection — Morbid Excitement is sometimes so violent as not to admit of effusion of any kind; the worst Ophthalmia are those where inflammation in the Eyes is not evident — they may be made so by a plentiful use of V.S. — We are born with an innate predisposition to disease or morbid excitement. —

Forms of Disease. The different forms of disease are Six viz —

1st Convulsion, the proximate cause of fever this is chiefly confined to the Bloodvessels & Muscles.*

2° Spasm — this affects the Muscles, as in Cramp, the bowels as in Colic; the Stomach, as in Gastrodynia; the Trachea as in Cynanche Trachealis; the Uterus as in Parturition. It is divided into Tonic & Clonic; the former is constant, the latter alternates. — Clonic Spasms occur in Parturition &c

* It is always local
# the heat will become Evident the pulse rise &c by 8 of 9 by no means limit the forms of disease to 6. there are probably many grades & shades of the 6 primary forms all issue from one cause Morb: Excitemt—

There is hardly any disease confined exclusively to one form of M: excitemt often 2 or more exist at once in the same part. sometimes they are all present at the same time but in different parts, sometimes they succeed each other in the same part & even on the same day. as we see storms sometimes with rain then wind, hail snow &c— Now storms are an unit & arise only from one cause Morb: excitemt in the atmosphere— Thus Gent: I have given you the history of the Phenomena of disease— it may be seen in every disease in a greater or less degree— Nosology may be compared to old heathen Mythology—

Application of the above Principles.—

When excitement is elevated regard the system in an unsafe state— remove stimuli of all kinds, & advise rest Remove the predisposing cause, debility by gentle stimuli gradually applied— Defend the system with double the care when debility is greatest, at midnight in the morning & evening. Gradually expand excitement to prevent accumulation of excitability. If disease consists in irregular action let your remedies be calculated to make it regular— If disease an unit— then why not remove the same grade of it, wherever seated by the same remedies. Typhus pulse whether it

3° Preternatural heat, either external or internal, as in the Skin Stomach &c *

4" Itching. This occurs on different parts of the Skin, Anus Pudenda &c. Never on an internal part or beyond the reach of the Nails. —

5" Aura or Shocks; as Aura Arthritica in Gout, & an aura called by the French Tic Doloreaux, but more properly aura Dolorifica. As a shock of Electricity it goes & comes on. —

6" Suffocated Excitement. This occurs chiefly in the Lungs & brain, in the Bloodvessels &c, & includes oppression & Prostration — it consists in such an accumulation & absorption of morbid excitement as to suspend Sensation & motion; & is known by the absence of a frequent & full Pulse; & of heat. #

Effects of Disease.

These are 1st. Inflammation, or an effusion of red blood into the Serous vessels, so much so as to raise the parts, as in Ophthalmia & Sometimes inflammat^n is so great as to rupture the vessels — an error loci after this has continued for some time, the Circulation becomes languid, & congestions tumours

it occurs in Fever, in Pulm: Consumptn or in Madness calls for similar remedies. The same grade of Morb: excitem^t in the Lungs, Brain, Liver, Bowels &c call for similar remedies. I do not however mean to say that disease is always to be cured by the same remedies; they require to be varied^t according to the part affected, to the violence of the disease &c

+ Into their force &c

tumours &c are formed. —

2° A Secretion of Serum, or coagulating Lymph producing dropsies — hence Pus secreted in the Trachea Lungs Uterus &c. Hemorrhage & black vomit. 10

3° An increase of Secretion & excretion, as mucus semen &c.

11 4" Schirri, indurated tumours &c.

12 5" Unusual Sensibility, Mobility & Irritability, or deficiency of each or both of them, as in Stupor 13 Inertia &c.

6" Eruptions of different kinds. —

7" Changes certain Parts into bone. —

8" Cancer

9" Certain changes in the blood, & all the fluids in the body, rendering them acid & altering their proportions —

10" Gangrene & Death. —

<u>Seats of Disease</u>. These are sometimes with difficulty ascertained. —

1st" Because diseases are sometimes dumb. No fever, pain, heat &c. 14 the Liver is often affected without disease. —

2° From the effects of Sympathy, or Intercommunion

* Water in the brain not the cause of Hydrocephalus Internus but the effect. happily for us we can cure diseases without being acquainted with its seats - tho' I mention it is difficult & often impossible to find out the principal seat of disease yet I am far from thinking this kind of knowledge altogether unattainable or useless

munion of Sensation, we find it impossible to judge precisely of the seat of the disease. How many diseases of the Brain are produced by an affection of the Stomach & Vice versa; & how often do the signs of disease in one appear in the other. A woman was seized with a puking & discharge of bile from the intestines, wh was supposed to be brought on by a Schirrus of the liver; these symptoms continued & she died: upon dissection the liver appeared to be in a healthy state, & her uterus alone was diseased. 15

3° In all general diseases the seats change with the weather; & by the use of certain remedies, & in several stages also.—

4th Dissections will not teach us the causes of diseases - 1st Because they often shew us none 17 2° They deceive us by presenting effects for causes; as Ulcers in the Lungs in Pulmonary Consumption, are the effects not causes.* 3° We often find marks remote from the diseased part; for instance, a stone in one Kidney, with disease in the other. I do not inveigh against dissection, but recommend it, especially in

in certain parts of the body. Is there no sign but pain of the existence of disease? 18 Pain is by no means the only sign of disease. In both arms there exists a more certain signal sign than 19 in any other part of the body. I mean the Pulse. When it fails to give us any information of disease, which is seldom the case, the tongue excretions &c may give some insight – or the Countenance perform a vicarious office for it. I have called the Pulse a Nosometer or Dial plate, & by an attention to it, I have discovered diseases & prevented Death, when the Patient did not complain. A uniform knowledge of the seat of pain is not only useless but hurtful to us. The whole arterial system 20 is as much a unit as any ~~other~~ one Viscus of the body

Signs of Disease.

They have been divided into Common & proper also into primary & secondary – Symptoms of disease have also been divided into Diagnostic and Pathognomonic; but they are uncertain & unnecessary. –

1st Relation, Sympathy & Association are different in the diseased & healthy state. –

2°

2° Signs of the same disease different in different people. 1

3° They differ in the force of the same disease in the same person.

4" They differ in Climates.

5" They are in many instances a part of the same disease.

6" They differ in the same diseases

7" They differ as they relate to its forming state.

8" They differ as they relate to its height, crisis, & tendency to health.

9" They differ in different days

2 The Signs of the Different diseases are taken

3 1" From perspiration urine & Foces, including the quantity quality & times of discharges. 2° The Tongue 3° Respiration, 4" Conversation 5" The position of the body in bed 6" State of the Senses & Muscles - 7" The Appetite 8" Mental Faculties 9" State of the body as to heat or Cold 10" Existence of Pain, also the Nature of it. 4

5 Remarks on Pain. - 1" There are diseases without pain 2° The pain not always proportionate to disease - 3° Often felt in parts remote

remote from the disease which excites it, as head-ache from bile in the Stomach. 4th Altho' as unit it imparts different sensations, according to its grade, being acute in membranes, twisting in the bowels, jumping in the tooth ache &c

Constant pain is contrary to nature, as it destroys itself by wearing away the excitability. Pain is produced by a higher degree of excitement than produces pleasure, irregular action is induced. Pain is of an attractive nature Schirri & Gangrene at times follow it. The Nerves & Mind should not be occupied by any higher excitement than the pain, hence a blister will not draw before the System is reduced. Pain is sometimes so acute as to destroy life; it has intervals of ease, & is then best borne as we see in Colic Stone &c. It is also best borne when it comes on gradually. There are three causes of pain

1st Stimulus over distending & producing a tendency to Mechanical solution, as in fever Luxation of bones &c

2d By such a relaxation of fibres as dispo-

* That pain may be felt it is necessary that the extremities of the Nerves & the Mind be not preoccupied, so as not to be elevated above the grade of pain. Sometimes in highly elevated states blisters cannot be felt also when the system is below the grade of Pain as in the low state of Typhus, Epilepsy and Drunkenness has suspended the pains of parturition. An insensibility to the pain of wounds in battle is owing to the excitement of the system being above the grade of pain. Some submit to very severe operations with readiness. Insensibility of the Primitive Martyrs to pain amidst all their sufferings, owing to the same cause, as also of the Indians when suffering. Pain varies with the causes producing it. Thus pain from an injury with a blunt instrument is different from pain when made with a sharp instrument. Pain at first excites the mind, afterwards agitates it with the fear of death, produces loss of domestic affections & in a very high grade, it occasions the sufferers to call on their Maker or dear or departed friends, sometimes produces sudden silence, singing laughing occasional transports of Glory. Pain is most sensibly felt in the extremities of the Nerves. Pain does not

ses them mechanically to contract

3° Certain Chymical Stimuli. —

The signs of pain appear in every part of the body, all in a convulsed or contracted state — hence the Phrase of biting the dust — it produces the loss of domestic affections & The head pays dearly for its preeminence as the Seat of the mind, as it suffers by Sympathy with every important viscus, Stomach, Uterus, Liver, Spleen &c

When there is much Pain in the Back or limbs the disease is seldom fatal, as it attracts it from the viscera & fixes it in parts less dangerous. *

Related to Pain is Anxiety. Nausea is another sign of Disease different from Pain & anxiety — Diseases of the head yeild most readily to purging, those of the Lungs to V.S. & those of the limbs to Blisters. Is there no sign of disease in the viscera but pain? Yes the Pulse, tongue, countenance, perspiration, respiration, urine foces &c — But I must again repeat that of all the signs the Pulse is the most valuable — Let not any of these direct you as to the causes of disease, or in your prescriptions for them — My doctrine

rejects

not always accompany disease, nor is it always proportionate to disease – Pain is often produced in a part remote from the impression producing it Pain is of an attractive Nature, this explains the reason why fevers attended with much pain in the back & bones are rarely fatal & Pain is felt most sensible by persons of a Nervous predisposition & Women most susceptible of pain during the periods of Menstruation & Pregnancy – 7

Circumstances of a Consolatory Nature with respect to pain – 1st It is seldom constant but has intervals of ease & it is then best borne, as we see in Colic Stone &c – also best borne when it comes on gradually – 2d Incurable pain is seldom acute but dull as in Cancer &c 3d Constant pain is contrary to nature as it destroys itself by wearing away the excitability –

rejects none of these, but in it the greatest homage is paid to the

Pulse.—

The Pulse may be called a Nosometer, or compared to the dial plate of a watch or Clock, it informs you of all that is going on within. In order to acquire an accurate knowledge of the Pulse in its diseased state, it is necessary that we should be acquainted with it in its healthy state & also in the different stages of life. In the healthy state of the Pulse it is ~~full~~ ~~round~~ soft & flowing, open vigorous, free from all resistance, is at equal intervals, at 66

This state differs under different circumstances.— 1st It varies according to the age of the person; at the Commencement of life, or a few days or weeks after birth, the Pulse ranges between 130 & 140 strokes in a Minute. Towards the end of the first Year 124 — at two years of age from 108 to 110 at three years from 86 to 108 at 4, 5 or 6 Years of age from 80 to 100 & at 7 it falls from 90 to 72. In adults it is from 60 to 88 generally 66 in the Minute. In old age

it

age it is less frequent & more full; ~~it is slow~~ & intermitting. This is so much the case that when it differs from it, it shews signs of disease at the age of 60 the Pulse beats 60. In an old person of this City it beats only 36. In some according to Dr Heberden it descends as low as 26

2° Sex influences the Pulse in its quickness, that of Females being more frequent than that of Males; as women are more irritable. —

3° Different States of Society or Civilization influence the Pulse. It is slower in Savages than in Persons brought up in a Civilized state. Savages want the Numerous Stimuli of thought Conversation &c wh Civilized people enjoy — hence too the Pulse is less frequent in Countrymen than in Citizens. I have feel the pulse of 10 Indians & found it below 60 in 8 of them the other two reached that number, but one of them had been previously sitting by a fire, & the other was the offspring of a Frenchman. All those who spend their time in idleness have slower pulses than those who are busily employed. —

4th

4th The sizes of people affect the Arterial System, its pulsatory motion being more frequent quicker in the short or low, Ceteris paribus than in the tall. Haller says in very tall men it is not more than 55

5th Climate & the different seasons of the year affect the Pulse, being quicker in warm than in cold climates. In Greenland it scarcely exceeds 40 In the West Indies quicker in new comers than in the old inhabitants. In new imported slaves it is quicker than in those we have had for some time among us

6th Different times of the day influence the Pulse. Slowest at 7 in the Morning at Noon it is Stationary it then descends gradually till evening, at bed time it is generally slower on account of the exhaustion of excitability At Mid-night it is at a low degree of frequency.—

7th Different in the Sleeping & waking state quicker in the latter by 8 or 16 Stroke.—

8th Different positions of the body influence the frequency of the Pulse, thus it is slowest when on the back, quicker when on the Side, quicker still when sitting up, & quickest when Standing

9th

9" Fasting, Food, & drinks, especially such as are stimulating influence the Pulse. It is accelerated by a full meal, & decreased by fasting for some time, but afterwards it rises; no person who dies of Famine, die of a Fever. –

10" Different positions of the arm influence the Pulse; when the arm has been exposed to the cold for some time, the pulse becomes much slower, & also when the arm is pressed under the body, & when its muscles are in action, hence the propriety of warming the arm & relaxing its muscles when we feel the Pulse

11" Exercise of the Understanding & the Passions of the Mind, those of a Sedative lowering & vice versa. Grief reduces it below 60. –

12" Anger quickens it to 140; Conversation quickens it – hence the Propriety of feeling the Pulse before the Patient begins to describe his disease. –

13" Bodily exercise. If the natural state of the Pulse be 64 when sitting, standing will increase it to 68 walking at the rate of 2 Miles an hour 76 – 4 Miles 88 & running from 140 to

to 150 in the minute. —

14th Pregnancy quickens it, quicker also when the menses flow, & during Menstruation. It is of consequence to know this in Chronic cases of disease. All pregnant women have their pulse preternaturally quick or slow. —

15th Certain Medicines quicken the Pulse, such as Opium, Vomits, Purges, Bark Blisters, steel hot & cold Baths &c — Blisters affect the pulse more or less according to the parts applied. We must know the Blister Pulse, Opium Pulse, & Mercurial Pulse, for to distinguish them from the Morbid pulse

16th Coughing quickens it

17th Fear influences it — hence in visiting a Patient we should wait a few moments in order to let him get over his agitation produced by our presence. I have seen the Pulse fall after prescribing Vs.

18th Intensity of thought, influencing respiration lessens the pulse. —

There is some deviations from the general rule of the Pulse, for example — There is a Gentle-

man

man in this City - Judge Peters whose pulse is a 100 in a minute when in good health, & a Lady whose pulse does not exceed 40 in a minute in health & 60 in a high fever. In others it is preternaturally quick. I heard of a Clergyman whose pulse in a healthy state beat 100 in a minute A fever afterwards restored it to between 60 & 70 & there it remained; there must have been too much excitability in the System, & this diseased or morbid state was removed by the action of the fever. Before I enter upon the Morbid states of the Pulse, I deem it necessary to deliver a few Physiological Propositions

1st The Heart & Arteries are connected & invested wth muscular fibres possessing great irritability, or a susceptibility of being acted upon by the different Stimuli, hence if one part be affected the whole will Sympathize. They may be compared to the Sensitive Plant, or to the Bells of the Jewish High Priest - touch one & all will ring —

2° The Heart & Muscular fibre possess irritability

3° The same motions excited in one part by the Arterial System are communicated to others, by means of

of their contiguous sympathy. This is illustrated by the case of Hicks who died in this City with an enlarged omentum which pressed upon the Aorta, & affected the whole arterial system, for his pulse was very small. This will lead to the explanation of many other appearances, for in most diseases we may expect to find the same kind of action in the artery as is in the diseased part. Is the pulse tense in Acute Pneumony? The same occurs in the Pleura or membrane of the lungs in the whole Arterial System. Are the vessels of the Lungs engorged in a Pneumonia & Mia? The same occurs in the whole. Is it soft the vessels are so engorged that they can't put on a tense action. Are there intermissions in the Pulsations of the heart? The same takes place in the whole arterial system. Is the Stomach & upper bowels inflamed? The Pulse is tense but small, because the vessels of those parts are small. The Pulse is more tense & full in inflammations of the Colon, only because the arteries of the Colon are larger. If the Pulse is not small in Ophthalmia & inflammations of the Joints, it is only because large vessels are prompt

brought into sympathy by contiguity. —
There are diseases in which the Pulse does not sympathize, but these are few & may arise from the following causes. 1st From a weakness of the Heart itself. or from a want of irritability 2d From the disordered state of the artery at the wrist — 3d From suffocated excitement. 4th From large portions of fat pressing upon the Pulse 5th From an accidental pressure of the muscles of the arm by the posture of the body 6th From Cold 7th From want of irritability in the contiguous parts 8th From a want of sympathy in the heart preventing it from equalizing the action of different parts. Or from the disease being insolated in the Lungs, as in Catarrh, the artery does not sympathize, so we are to bleed in a Catarrh without regard to the Pulse. — The Pulse is slow in inflamed Parts. — 9th From unequal excitement in the bloodvessels, as in the ataxic fevers of Alibert, in Palsy & Cough. This want of harmony accounts for the fact mentioned by J Hunter viz sizy blood with a Natural Pulse. There may be great disease in one part with little

little action in another. Let not the number of these exceptions preclude the feeling of the Pulse, for they do not occur in more than one case in 20, & we sometimes see the absence of pain in Malignant fevers when the tongue is foul &c and vice versa in diseases of less consequence

Thus I have mentioned the different states of the Pulse as they occur naturally in the different stages of perfect life. But as Physicians, it becomes us to go further & acquire a knowledge of this important part of the human frame, as it varies in consequence of the numerous incidents & diseases to wh it is subjected —

The Morbid States of the Pulse.

These are known 1st By their frequency & quickness — these are not necessarily connected — for the pulse may be very quick & yet not frequent, as in the Y. Fever. By frequency is meant the number of strokes in a minute; by quickness the time in wh each stroke is performed; its frequency is occasioned by a morbid

morbid irritability in the Bloodvessels
The Pulse varies from health in quickness and fulness as in Y. Fever & other acute diseases, here it varies from 60 & 80 to 180 & even 200, & falls in some diseases to 40, 30, 20, & in one or two cases to 9 - in Apoplexy it sometimes falls as low as 7. - The Quickness is probably caused by an irritable state of the Bloodvessels, they contract more quickly by the Stimulus of the blood (the arteries especially) this irritability I conceive to be induced by the Stimulus of Miasmata - hence it occurs in Intermittents, Y. Fever &c. This circumstance in some cases gives rise to the intermitting pulse - this is when there is a cessation of Pulsation for a certain time after every 1st 2d or 3d Stroke & frequently occurs in Malignt fever. -

The Slowness may depend upon 3 Causes 1st Pressure, as in Apoplexy & Palsy, the Pulsations being equal to each other but intermissions occur. 2d Spasms of the heard & 3d defect of irritability in the Arteries. -

2d By their force & irregularity, this is of
more

more consequence than variation in frequency quickness & fulness also by imparting a jerking sensation to the fingers resembling a shattered quill. We now proceed to consider the different states of the Pulse as they occur in Fever.

1st The Depressed Pulse. This state of the pulse is occasioned by stimuli acting so violently as to depress the system below the point of reaction, or by pressure on some great vessel. It often descends as low as 40, 30, 20, & sometimes so depressed that it is imperceptible. — It is raised by V.S. It is sometimes preternaturally frequent or slow, attended with intermissions, & sometimes natural. It occurs in Plague, Y. Fever, Malignant Small Pox, & in Pleurisy. It is either partial or General, occurring in the extremities in the former; & in the latter in the whole arterial system occasioned by stimuli depressing the strength below the healthy state. It resembles the weak or Typhus pulse, the following directions will serve to distinguish them. —

1st The depressed pulse is known by its occurring

occurring in the beginning or forming stater of fevers, or in the paroxysm of such fevers & other diseases as are Periodical. —

2° By imparting a sense of tension to the fingers when long & attentively felt. —

3° By occurring in morbid affections of the brain, heart, stomach & bowels, more frequently than in diseases of other parts of the body. —

4th By its being raised by Ev. Purges &c taking off the suffocated excitement. —

5th By its being frequently attended with slowness or intermission. This pulse may be compared to a tree bent by the winds, & rising to its pristine state when the storm has blown over, while the Typhus resembles a tree shattered by lightning, & which cannot be raised but by the hand of art. —

2° The Catgut Bulky or Locked Pulse.

It is small, & generally quick but not always frequent, tense, & distinct imparts a sensation to the fingers similar to that produced by feeling a piece of tense Catgut whence I have named it. It occurs in Malignt fevers —

3°

6 * Synochus Mitis – This is full, round, soft & frequent, occurring in Mild bilious fevers.

3° The Synochus. Fortiz (The reverse of the two former) a full, round, vigorous, frequent & quick pulse without hardness, which occurs in the highest grade of bilious fevers. Exercise produces a pulse somewhat similar to this. —

4th The Synocha or Common inflammatory Pulse, being full quick frequent & tense, but not round & is known by heat thirst &c. occurs in common inflammatory fevers. This pulse exists sometimes in the Plague, Y. Fever, Jail Fever & small Pox, but more frequently in Pneumonic affections, Rheumatism & Arthritis. —

5th The Synochula. A quick frequent moderately tense but small pulse, a Diminutive of Synocha imparting a sensation to the fingers similar to a quill & occurs in Chronic Rheumatism, Gout Phthisis Pulmonalis &c & in the 2° Stage of other fevers. *

7 6th The Synochoid. — This is alternately a hard & soft pulse, feels like a Shattered quill & is a compound of Synochus & Synocha. It occurs in the Passage of fevers from the inflammatory to the low state of Butler; or from an

an acute to a chronic disease. Feels like a quill that has been trodden on. —

8 7th The Typhoid. A frequent & less tense than full pulse. This is composed of Synocha & the slow chronic state of fevers & occurs in the Hectic & Puerperile fevers, in Scarlatina & the Pulses preceding Typhus are above Par, those succeeding Typhoid are below Par!

9 8th The Typhus. A weak, quick small frequent but not full or tense pulse. This occurs in the low chronic state of fevers, also in the close of inflammatory diseases, when depletion remedies have not been used in the first stage. The bloodvessels in this appear to be deprived of a part of their irritability, it is here that V.S. is forbidden & stimulants are to be used. —

10 9th The Hectic. — The forms of this Pulse are various being occasionally Synochoid Typhoid & Typhus. It occurs in Phthisis Pulmonalis, Podagra of Tabes from the Lues Venerea & Scrophula.

10th The Hobling Pulse is unequal or fluctuating, tense quick & very frequent, & may

may be divided into two, 1st One two or three quick strokes succeeding a slow one & 2d One two or three slow strokes succeeding a quick one.—

11th The Dicrotus & Capreans Pulses the former strongest

12th The Serrated Pulse. Strikes the fingers like a Saw.—

13th The Vermicular Pulse. Small frequent & resembling the motions of a worm.—

14th The Creeping Pulse. Weak, small, & scarce perceptible occurs at the close of life.—

15th The Apparently Natural Pulse. Occurs in the worst Malignt fevers, great danger is to be apprehended from this difficult to be distinguished from a healthy one.—

Scarcely ever any one of these always present. They are therefore combined, 1st In double proportion, as full & weak, full & frequent, full & quick, quick & frequent, depressed & weak, slow & intermitting &c.— 2d They are compounded in a threefold ratio as full strong & frequent quick small weak & slow at the same time. 3d In a four fold ratio, as full, strong, quick & frequent at the same time.—

16th A full, bounding (slow & moderately) tense Pulse, which occurs in Palsy Dropsy &c. It is especially slow in the affected side as in Hemiplegia I examined the Pulse of a Paralytic Patient whose artery beat on the affected side only 50 in a minute while on the other side it beat from 80 to 90

17th A Weak low Pulse without inequality, & occurs in debility without fever &c is distinguished from the weak slow pulse of Malignant fever by its occurring in the last stages of diseases

18th The Aneurismatic Pulse. full tense & jarring. There is sometimes an absence of Pulse for 2 or 3 days, I have heard of an absence of it for 7 days. This pulse occurs in Aneurism, whence its name. A total absence of the Pulse occurs often in violent affections of the Stomach & Bowels, it lasts for hours. One lady I have known to continue without a pulse for 36 hours, in consequence of eating some Oysters & this Lady has since recovered & been quite well for many Years.

In order to inform your Patients of the state of

of the Pulse, which sometimes they are extremely anxious to know, you should compare it to a scale of 10 degrees, with 5 above & 5 below the healthy point. The Pulse is very much influenced by the strength of body. In a Pidgeon it is 100 in a dog 80 in the Ram it has been found to beat 65, in an Ox from 36 to 38 & in a horse from 34 to 36 strokes in a Minute

I have now delivered all the Pulses wh have occurred in my Practice. — Dr Galmart a French Physician has discovered another wh he calls the

11 Gaseous Pulse. Soft full & round but sinking under the fingers; even the pressure of the little finger produces this. — I shall next give you some directions for acquiring a knowledge of the state of the Pulse. —

1st Never feel the Pulse of a Patient the moment you enter the room, your presence excites hope, fear, or some emotion in his mind, which has an influence on the Pulse. If the weather be cold, warm your hands & feet first, but beware of entering into any conversation with him before you feel his pulse, as conversation has a great influence

influence on the Pulse.

2° Place your whole four fingers on the Artery. this gives you a much better opportunity of judging than one finger could do

3° If you feel the Patients left arm use your right hand & vice versa. 3

4" Feel the wrist of both arms, as there is in many cases a difference in the two from several circumstances, as an exposure of one arm to cold air, pressure on the Artery &c &c I have corrected my judgment frequently in this manner from one arm I have prescribed bleeding, from feeling the other retracted my opinion. Never remove your hand till you have felt 20 Strokes. I have observed an intermission in the Pulse at the 18th Stroke. The Chinese Physicians feel 49, hence perhaps their accuracy in the Pulse. If the case be critical shut your eyes, order silence in the room, & to use an expression of Dr Darwin's "Concentrate all sensorial power in yr fingers ends". The influence of sound &c detract from the accuracy of feeling. 10

If the Radial artery be from any cause not easily

sily felt, feel the Temporal which is the next best — & here Gent: excuse my making mention of a Caution in the Application of Blisters: never apply them so as to prevent your feeling the Pulse, if you do feel it afterwards, you give him so much pain as to make an alteration in the Pulse. The Temporal artery must be felt; this Artery you must feel in diseases of the brain.

Thus Gent: I have related the knowledge I have acquired of the Pulse during my reading & Practice, they are the experience of my life, they dictate when bleeding is indicated & in what quantity. Always feel the Pulse before you prescribe any of the following remedies — Vomits, Purges, Bath the hot & cold Baths, Pediluvium; also before the use of Stimulating medicines; as Bark and Wine; Stimulating & Nourishing aliment and drinks, as they all change the Pulse very much The frequency of the Pulse tho of little consequence comparatively with the Force, & other characters of it, has been much relied on by the Physicians of Europe especially G. Britain. — They use for the purpose of acquiring a knowledge

* Diseases have been divided into Idiopathic & Symptomatic - This however is not a good division, for disease is to be cured in the same way whether Sympathetic or Idiopathic - Hydrocephalus Internus is not to be produced by worms in some instances, here the worms in the intestines constitute the original disease the Hydrocephalus is the Sympathetic This Sympathetic Hydrocephalus is to be cured however in the same way as Hydrocephalus from a blow in the head - Diseases have likewise been divided into contiguous & non contiguous - into Endemic & Epidemic, Sporadic, Vernal, Autumnal &c The remote predisposing & exciting cause of disease act in producing it sometimes seperately, at other times 2 or all of them are combined. ____

ledge of its frequency, moment watches, quarter minute watches &c But this is rediculous & I hope they will never be introduced to American practice. A Spanish Physician by the name of Solano has made many observations on the Pulse from some of wh he asserts that 180 is the greatest number of strokes wh the arteries can beat consistently with the recovery of the Patient — 200 in Hydrocephalus is quite common, but whether they ever recover I know not. The observations of Cullen are opposed to those of Dr Solano he says Dr S — observations are useless.

Plato we are told had inscribed over the door of the School where he taught his pupils, Let no one enter here who does not understand Geometry. In like manner were I to dedicate a Temple to Medicine, I would inscribe over the doors of every apartment Let no one ~~enter here~~ depart hence who does not understand the Pulse.

Remote Causes of Disease.

We come next to inquire into the numerous causes which lay the foundation of disease. It has been

been aptly said that as soon as a child comes into the world "it inhales the lurking principles of death". The remote causes predisposing children to disease are the following – 1st The ignorance of the Midwife with respect to delivery – 2° bathing the child in Spirits of Wine harsh soap &c 3° The use of Spirits internally, spicing diet &c 4" Sucking bad milk & 5" tight swaddling clothes &c 6" The Manner of Education, Confinement in close schools &c. 7" The Amusements of Children, subjecting them to falls burns &c &c –

The Atmosphere produces diseases, by its sensible & insensible qualities. The former are heat, cold, moisture, dryness, density & rarity. Those of the latter are Marsh & Human Effluvia & From these originate all febrile Complaints. Air may be divided into hot, warm, temperate, cool, & Cold.

2 Heat. This is an Universal Stimulant; when moderate as at 75 it is friendly to health; but when above this, produces debility from action. When in excess, its effects are shewn 1st on the Arterial System by producing fever &c – 2d when

* 1 Preternatural Activity – 2° indisposition to voluntary Motion – 3° Torpor & langour – producing irritability also

When combined with the rays of the Sun, it affects the brain producing what has been called insolation, also sleep, stupidity & Death. 3° On the Nervous system producing convulsions Syncope & death. 4" On the Muscular fibres producing weakness, langour, indisposition, involuntary motion of the Muscles, Tetanus &c. 5" On the Skin producing itching, pimples & a brown colour, when Moderate produces Moisture, perspiration Sweat, but when in excess preternatural dryness &c 6" On the Stomach increasing the appetite, & afterwards a decay 7" It increases the venereal appetite, 8" It induces a tendency to putrifaction in the Blood. 9" It gives the humours in the body a centrifugal determination as in Bubo, Glandular Swellings &c 10th It increases the excretion & secretion of bile which corrects the tendency to putrifaction in the Blood mentioned above 11th It favours the production of the Menses. 12" It affects the Eyesight producing Gutta Serena, Ophalmia &c 13" It affects the mind first with Sprightliness afterwards irascibility; weakens some of its operations, but strengthens the imagination

14" It lessens the density of the Solids. 15" It is less friendly to young than to old people hence the practice amongst the ancients of changing a cold for a warm climate when they became old. By this means they prolonged their lives 10 or 12 years. — It weakens the sense of taste, it affects hearing. In the bowels it disposes to Cholera & Dysentery. The urine indicates scarcely any change at the crisis of fevers in the West Indies

Relative Effects of Heat. When the System has been exposed to cold, it is then acted upon more forcibly by heat. Warm winters are followed by unhealthy Springs, hence the propriety of the old saying "that a Green Christmas makes a fat grave yard" Weather becoming temperate after being very warm produces diseases by checking perspiration. Autumns succeeding very warm Summers are often attended with bilious fevers. The fall of 1793 was preceded by a warm dry summer. — No climate necessarily unhealthy, but they are made so by the intemperance & of the inhabitants; for it is ascertained that dress, diet drink the Passions &c have a great influence over the body

body. Uniform dry weather seldom induces disease, only when succeeded or preceded by moisture: thus diseases are generated in one season and produced in another. Upon the whole, I conclude that wet seasons are generally healthy, & that most diseases are induced by transitions from cold to heat & vice versa, by diet drink &c

Cold. This has been erroneously supposed to act as a Stimulant upon the System. Its effects are Negative; it acts only by the abstraction of heat; that it is a Sedative I infer 1st from the general debility it produces - 2d From the slowness of the pulse & weariness - 3d From its operations being similar to those of other debilitating causes, such as V.S. Purging &c. 2 Is the pulse slow in Pleurisy Y. Fever &c? So it is from depression. Is it raised by V.S.? So it is by abstracting excess of Stimuli. Is it raised by Emetics? So it is by an abstraction of the excess of Stimuli. Cold acts by inducing direct debility or debility from Abstraction; heat by inducing indirect debility or debility from action. Upon the application of cold part of the heat is abstracted; hence the apparent

tonic

tonic power of Cold when our bodies have been debilitated by heat.—

Effects of Cold. 1st Upon the Arterial System by inducing debility or increasing excitability, disposes the system to all kinds of fevers. 2° Upon the Nervous producing a dullness of Sensation. 3° Upon the Muscular, producing langour, debility &c 4th It invigorates the appetite, hence the Germans are notorious for their warm stables in order that their horses may eat the less 5" It weakens the Venereal appetite. 6" It increases considerably the discharge of urine. 7" It is unfavourable to size 8" It operates with other causes in producing scurvy 9" It disposes old annual sores to bleed afresh 10" It is unfavourable to vision 11" In a certain degree it produces paleness of the skin, in a greater redness, & in a still greater, a purple or dark colour. 12" It acts powerfully in sleep, hence most diseases attack us at that time 13" It acts more powerfully upon old people than upon young; hence we hear of their being found dead in the Cold & with their children by their sides alive. Case of a woman who was found

dead

dead & her child alive & at the breast.—

4 Weather uniformly cold is healthy. In Canada diseases of all kinds are locked up, & they are only let out when heat succeeds or precedes cold

5 Heat succeeding cold produces diseases. The Spring of Russia produces fevers of a peculiar kind, & our falls also; thus the diseases of cold climates are generated in one season & produced in another and vice versa. Heat does not produce diseases after the long application of Cold; because the Nerves become Torpid & are not able to react.—

Cold produces diseases in Northern Climates when warm drefs, houses &c are not used. The sudden transition from heat to cold does not necessarily produce disease, or vice versa; more care & attention in accommodating ourselves to the weather by drefs, diet, drink &c would prevent disease.

Middle Lattitudes not necessarily unhealthy, tho' they require more care & attention to bed clothes & drefs. The Chinese change their drefs 2 or 3 times a day in order to accommodate themselves to the weather.

Cold,

Cold feet induces Catarrh, Nine tenths of all the diseases of the system are received into it by the avenues of the feet & mouth. Cold acts more powerfully when the Stomach is empty, more powerfully on drunkards than on sober persons, because the first are generally very much debilitated when not under the effects of some stimuli

Cold as I have said is the predisposing cause of all diseases more suffer from it than from any other cause in Nature; not only of Man, but of other animals. The diseases are also more numerous from this than from other causes. In short there is not a greater enemy to the health & life of Man than Cold. The Spring & autumn between the degrees of 35 & 50 are the most healthy. Heat & Cold act differently in different months —

The following is a table of Mortality for one Year.

+ July 12

Hot from the South, & Cold from the north -

	Whole	Boys	Girls	Men	Women	Widowers	Widows
Jan:	142	57					
Feb^y	111	46					
March	112						
April	108						
May	107	31	29	21			
June	77	21	27	8	11		
+ August	85	29	20	18	8	5	9
Sept^r	120	36	35	12	24	3	10
Oct^r	110	43	35	8	13	2	9
Nov^r	226	42	34	10	19	5	15
Dec^r	134	38	35	30	15	7	9

Effects of Wind in producing disease. Winds are hot & cold, dry & moist. They are dry from the West & moist from the east; the body is immersed within them. Sudden changes more certainly affect the body when accompanied with high winds. They produce certain changes in the mind as the Sirocco & Samoil winds. They act more powerfully upon invalids than upon healthy people. Not only winds but the absence of them produces disease.—

Effects

Effects of the rarity & Density of the atmosphere. Air highly rarefied produces numerous diseases, great muscular weakness, difficulty of breathing, quickness of pulse profuse sweats, sickness at Stomach, sleepiness, an aversion to ardent Spirits, & great pain, according to M. Saussure. These effects are attributed to a more rapid Combustion of azote or a deficiency of oxygen. — Baron Humboldt who ascended the highest mountain said it produced hemorrhage from the Nose eyes mouth &c, by his Eudiometer the oxygen descended to 18 parts in the 100. Air too dense is very hurtful to Asthmatical or Consumptive patients.

Impregnations of the air. We come now to consider the impurity of the air, as the remote cause of disease.

1st. Marsh Effluvia. or as Dr. Mitchell has called them Coino-Miasmatic exhalations. For the production of these two things are necessary viz heat & Moisture. the Thermometer should stand at 80. When the ground is covered with water no exhalations can take place. In like manner

Marsh Mosquitoes are most noxious in the morning & evening, and less so in the middle of the day

manner when the heat & drought is so great as to dry the earth no exhalations can take place; but when there is not a sufficient quantity of rain or heat either to overflow or dry up the surface of the ground then the exhalations are produced. The summer should be moderately moist to produce miasmata. Heavy rains have sometimes produced miasmata by washing off the green covering that is sometimes found on stagnant waters, and wh prevented the sun from acting upon them without which the miasmata could not be formed. These effluvia arise partly from animals & vegetables, but more generally from the latter. The follow g vegetable matters produce these marsh Effluvia viz Putrid Cabbage, potatoes turnips peppermint, onions, aniseed, caraway seed confined in the hole of a ship, coffee, cotton, hemp, flax, straw, old books, & old paper money, the timber of an old house, log houses the second year after they are built in consequence of the putrifaction of the bark, green wood confined in cellars green timber of a ship - Also air stagnating in the hole of a ship & Cellars, & stagnated

waters

waters when agitated produce Miasmata. Fevers are not so often produced by animal as by Vegetable effluvia; there are however a few wh are produced by the former.—

2° Human Effluvia, or Idio Miasmatic exhalations of Dr Mitchell. These are produced from want of Cleanliness, dead bodies raw hides &c. Miasmata act 1st upon the Stomach 2d upon the intestines producing Cholera, Dysentery &c 3d upon the Liver increasing the secretion of bile imparting to it viscidity & acrimony 4th upon the Bloodvessels, producing Yellow Fever, Intermittent, Remittent, Jail, Typhus or low chronic fever & febricula or inward fever, hemorrhages &c 5th On the Brain, Kidneys & Spleen, more particularly this last producing an inflammation or induration in it called Ague Cake. 6th upon the nervous system. 7th On the Muscles producing convulsions &c 8th on the Lymphatic System producing glandular swellings &c 9th on the eyes producing Ophthalmia &c 10th upon the skin producing carbuncles eruptions &c The human effluvia are of 2 kinds from excreted matter

Miasmata

* Persons long accustomed to these Miasmata are but little affected with them hence the natives of sickly countries suffer but little or perhaps not at all from the action of the same Miasmata which in new comers produce formidable diseases and death — Miasmata frequently do nothing more than give a predisposition to disease in one summer & in the next summer acting on this predisposition diseases are produced. The diseases produced by Marsh Miasmata are not contagious they are incapable of generating themselves These Miasmata have been carried by the winds 9 Miles. Strange as it may appear it is nevertheless a fact that the existence of these miasmata have been called in question, because the Eudiometer does not discover the air impregnated with them to be less pure than air generally is; as well might we deny the existence of a Spirit because we do not see it

Miasmata may exist in the body 20 or 30 days without producing disease sometimes even 6 months — * Effluvia are more injurious to health in the morning & evening than in the middle of the day — They are always a source of disease, & are assisted by the following circumstances, Uncleanliness, confinement in large crowds, low rapid vegetable diet, scanty & putrified animal diet, mixing of strangers together, great prostration & grief of mind; all these predispose to disease. Cold weather is favourable to the spreading of contagious diseases in consequence of the houses being shut up very close in order to keep the cold out. Woollen & other clothes retain & spread contagion, also wood. Walls if white washed will not retain the effluvia of Typhus fever. Effluvia act more powerfully upon the system when in a debilitated state. Pregnant women often escape the Y. Fever in consequence of the stimulus of distention from pregnancy; also persons affected with running sores escape it. Persons are capable of affecting themselves with Miasmata Persons highly charged with Miasmata may affect

* It is difficult to tell what it is in the air wh constituter an inflammatory constitution of the atmosphere - but certain I am such an inflammatory constitution does often exist. I once thot it depended on the air being super oxygenated, but late experiments of the Chemists have proved that the proportion of Oxygen in the air is the same when the inflammatory constitution prevails as at other times. —

+ 5 sometimes persons offend themselves

fect others without being affected themselves. †

Human Effluvia affect 1st the Bloodvessels 2d The Brain with delirium - 3d The glands 4th Produce Dysentery 5th Intermittent & Malignant fevers 6th Scurvy & Catarrh & lastly influenza. —

Human effluvia are often combined with Marsh Miasmata in producing bilious fevers. These are seldom conveyed more than 10 or 12 feet from the body. * No climate or country necessarily unhealthy, for fevers depending both upon the human & marsh effluvia are, owing entirely to the carelessness of men. Were we to take the necessary precautions to drain our Meadows of their impure Stagnant waters, to remove all putrifying matter from around us, & to keep our persons & clean, these mortal distempers would cease to afflict the human race. They are like the vermin sent as a reward for our laziness & folly. The Jail fever is rare in the U. States, because there is not so much poverty & filth among our Citizens for these are the causes which give rise to this fever in other places. — The Jail fever differs from the Bilious or Y: Fever in the following particulars

* There are 2 species of Contagion one from a secreted & the other from an excreted matter - From all the excretions, but particularly the perspirable matter, the Idio Miasmata proceed

+ The Pulmonic generally Zymotic

Contagious matter is a Zymotic

particulars 1st It comes on in cold weather & is not affected by rain or frost _ 2d It most frequently attacks the weak & infirm. 3d The Pulse is Typhoid. 4th It continues for 20 or 30 days. 5th It is propogated in a different manner by excretion & perspiration. *

The Yellow or Bilious fever is distinguished by the follow^g particulars. 1st By its attacking in warm weather _ 2d By coming on suddenly 3d By attacking principally the young & robust 4th By remissions & Intermissions. 5th By the increased secretion of bile & 6th By its being of a shorter duration as 3, 5 or 7 days; but it now & then runs on in a Chronic form from 20 to 25 days 7th By its being destroyed by cold & heavy rains. The Human or Idio-miasmatic exhalations & the Marsh or Coino-miasmatic exhalations affect the bloodvessels in all the 7 forms of fever _ viz _ The Bilious, Mild bilious, Remitting, Intermitting, Typhus, Typhoid & Febrecula.

3d Source of Disease. Phlogiston or air rendered impure by respiration &c Persons affected with Phthisis are greatly oppressed by this air _ 2d Air is

Sun Moon - Air impregnated with the fumes of Sulphuric Acid

Stagnated air without any foreign matter, with sometimes produced disease —

is unwholesome when mixed with fumes of Sulphur or Charcoal. 3° Air of certain Manufactories, as Lead Arsenic &c when they are volatilized. 4th After earthquakes the air has been observed to be extremely disagreeable, especially after one that happened in Jamaica on the 1st of June 1692 - 5th The Sorocco & Samoriel winds & Winds that have passed over a hot sandy country. 7th The air of certain mines. If birds fly over the lead mines of Scotland they are immediately killed on the days of work; but on a sunday when the labourers rest, they may fly over with impunity. Hence we may learn an important lesson, that a remote cause can seldom be able to produce a disease without an exciting cause, & in the Y. Fever I have never seen a case in wh I could not trace the disease to some cause or other wh excited it into action. After having thus treated of the impregnations of the air & their influence over health, we will proceed to mention the effects of

Situation over Health. New Countries are generally healthy until the trees which exclude the action of the sun are partially removed.

From

From the time of clearing until cultivation takes place it is sickly. The wood cutters in the Cedar swamps of Delaware & Carolina enjoy good health when the trees are standing, but after they are cut down & begin to putrify by the solar influence, health abandons the labourers. Towns are more sickly than the Country - Caused by the Atmosphere, impure exhalations from innumerable sources, the increased heat, together with the vegetables being forced by manure, & thus putrifying sooner. Country people are more predisposed to Dysentery from their rapid vegetable diet. Bilious fevers, Typhus & consumptions are the diseases of Cities. It has been computed that 3 or 4 die in Cities for 1 in the Country. Sandy soils are unhealthy. Vicinity to Towns, or Marshy grounds, one great source of disease. Vicinity to deserts & ponds; these last may be remedied by having trees planted around them. A Mountainous more healthy than a low situation, but there is one exception to this viz When the miasmata arise from the bottom & neighbourhood A collision of air is unhealthy, as that upon the sea

sea shore. Other local circumstances affect the healthiness of a situation viz Residence in Cellars more unhealthy than in rooms above ground; in hospitals. Houses situated so as not to receive the action of the Sun on every part, are not so healthy as those built in a contrary manner; or from being confined by trees, or being too hot, or cold is unhealthy. Dwelling houses often a source of disease from the green wood & new materials of which it is made. This is prevented by previously soaking the timber in water, by wh the sap is discharged; also by being built with stone, recently taken from the ground, by vapours from new plaister & paint; hence the wealthy romans never occupied a house for one year after being built. A House is also rendered unhealthy from age, for the wood when old exhales a vapour which produces intermittents. also by moisture of Cellars, by small smoky rooms, want of Cleanliness &c from the water used, families are rendered unhealthy. —

I knew two cases of Malignt fever wh proved fatal near Zachery's court in this City & none of the

the neighbours affected with it. 2° I also knew 9 heads of families die of this disease in Arch St. when none of the neighbours were the least affected. These probably originated from something impure in the Cellars, or from some other local cause. 3° & lastly, a fact more proper to our subject related by Van Swieten viz that the whole of the students together with the master of a certain University, were diseased when none of the neighbours were the least affected. This probably arose from some exhalations from privies & Cellars, or rotten vegetables near the University, or from some other local cause.

<u>Change of Situation</u> over health. 1° Persons changing a cold for a warm Climate are frequently affected with fevers. 2° Persons leaving a sickly neighbourhood & coming to a City are affected in the same manner; the miasmata in this case being previously received into the System, are excited into action, in consequence of the many exciting causes in a City, & the system thereby becomes diseased. 3° Old people leaving a cold & entering a warm Climate often become more

healthy

healthy whilst the same change of climate in young people would produce inflammatory complaints. 4th Removals from Marshy to airy dry situations often contribute to health, except in old people who frequently suffer by this change, since it deprives them of a customary stimulus viz the Marsh Miasmata wh on a former occasion were said to be the support in part of old age, but the destruction of youth & the middle ages 5th Those who have made long sea voyages are frequently affected with Catarrh on a near approach to land, in consequence of a mixture of the land & sea airs (case of a Sea Captn with whom Dr Rush crossed the Atlantic) 6th I have been at much trouble in trying to find out whether thunder & lightning independant of the change of the air has any influence over the system in producing disease, but have not been able to collect any thing certain on this subject. I knew a Lady who could tell the approach of a thunder storm by a giddiness and head ache which she always experienced some time before, & wh continued until the storm was over. Some persons appear to be born with a fear of thunder

thunder: A Lady in this City some years ago in consequence of her dread of thunder would during the continuance of a thunder storm shut her-self up in a dark room & drink an immense quan-tity of Spirits without being the least intoxicated, in this case excitement & excitability were either so suf-focated that they could not act, or were expended; at other times she did not discover the least attach-ment for Spirits. —

Leeches appear to be sensible of the change of weather by their motions. Mr Cooper informed me that he could always foretel the approach of Thunder by certain motions made by the Leeches wh he kept in his house — 7th Sound appears to affect some per-sons. A Lady in this City has always sweats chills tremblings & the appearance of great terror on hear-ing the noise produced by a carriage drawn over the pavements of the Streets. Deafness has been induced in 3 cases to my knowledge in consequence of the firing of Cannons, & even death. Birds have drop-ped dead from the firing of Cannon upon the deck of a Ship. We will now consider the effects of the heavenly bodies upon health &

1st

1st Of the Sun. We have already considered in what manner the heat of this body, by warming the air operate on the System. We will now consider its light absence & an excess of Solar light sometimes produces blindness & inflammation, while its absence produces temporary blindness from a want of Stimuli, both which are called Nyctalopia whether it depends upon an abundance or deficiency of light. Even the Momentary absence of of the Sun has produced alarming symptoms in the Yellow Fever — Darkness reduces the force & for a time the frequency of the Pulse — Most diseases attack at night & death often occurs at that time, May not this be owing to the absence of the Sun?

2° The Moon. The influence of the moon is felt by all animated Nature, & even the tides are owing to its influence. Vegetation also is measurably under it. Death occurs more frequently at the full & change of the Moon than at any other time. The Paroxysms of Many diseases appear to be influenced by the moon — It affects fevers. Dr Mosely relates the case of a British Officer who was regularly

regularly attacked with hemoptysis about the full or change of the Moon, & at no other time. I have seen 2 cases of it. I know a person affected with the Gout in this place, always to have the inflammatory paroxysm at the full or change of the moon. The Moon affects the Nervous System, also Madmen, hence the term Lunacy. Epilepsies & Asthmas appear to be under the influence of the Moon. It affects the tranquility of the Mind. hence a Lady observed her husband to be more petulant at the full of the Moon. Parturition appears to be hastened by the full. Worms are more troublesome in the bowels of children at the full & change than at any other time. Hypochondriac & Epileptic patients appear to be very much influenced by the full & change of the Moon. Dr Haller speaks of a person who felt the Calculus in the bladder more sensibly at the change of the Moon than at any other time. Chronic diseases yeild less to the influence of the moon than acute; perhaps from the operation of the medicine keeping up excitement. Eclipses of the Sun & Moon have great influence over the system. During the Eclipse of the sun or

on the 16th June 1806 the Lunatics in the Hospital were remarkably silent for 3 hours. Bezaded at the instant of the eclipse. A more remarkable fact is the following 4 British Soldiers were attacked at the moment of an Eclipse with Intermittents. If the eclipse of the 16th June had appeared in the Autumn when persons were predisposed to disease, it is highly probable that diseases would have been immediately produced The diurnal rotation of the earth appears to have great influence in regulating diseases & probably may sometimes induce them. The Pulse varies with the different changes occasioned by the earths revolution, for instance it is slow in the morning, quicker at noon & slower again at night. It is important to keep these changes in Mind, since they will be of great practical use. Dr Darwin has happily called the evening the Autumn of the day — he also remarks that Apoplexies & Palsies are more frequent at the Equinoxes. —

Contagious Diseases. These were formerly thought to be very numerous, but they are

are now known to be much more limited. — They are divided into Epidemic Endemic Sporadic & Intercurrent. Contagious diseases are received into the system by means of the Lungs Saliva, Nerves & Skin. They are sometimes called Specific Contagious, from particular parts of the System being affected only, as the Small pox, Chicken pox, Hooping Cough & Measles &c The Lues Venerea, Itch, Ring worms, & diseases of the Skin differ from the Small pox &c in being communicated only by contact; also in their originating from a fixed, & the Small pox &c from a Volatile matter. Specific Contagious diseases act without an exciting cause, whilst the Yellow Fever & such like diseases wh I only consider as Endemics scarcely ever take place without an exciting cause. —

Endemic diseases are such as affect many people together in the same place, or country, & originate from some local cause. Notwithstanding what has been said to the Contrary I believe the Yellow Fever to be an Endemic of the U. States as well as of the West Indies. —

Sporadic diseases are such as affect a few only as

at the same time & place.

Intercurrent diseases are such as affect a few persons here & there without regard to time or place.—

Epidemic diseases are such as attack sometimes in scouting parties; but more generally with great pomp & violence. They attack such an immense number of people at the same place & times as if they were going to destroy the human race; but they can be prevented repelled & vanquished by the powers of Medicine. Epidemic diseases arise altogether & invariably from the insensible & foreign matters in the atmosphere produced by Coino-Miasmatic exhalations, & are Small Pox, Influenza, Cynanche & The Cynanche Malligna Scarlatina & Influenza may be properly called diseases of the atmosphere. I will now deliver a few laws to which Epidemics are Subjected.—

1st They are all influenced by the Sensible qualities of the air, the influenza excepted. The Small pox for instance, is more violent, & the Measles & Scarlatina Anginosa still more so in the summer than in any other season.—

2d They are influenced by provisions & drinks of

of the season, while fruits for instance are ripe, the disease is thrown upon the intestines.

3° No 2 epidemics produced by different causes & of unequal force can affect the system at the same time. I would as soon believe that a horse can trot & pace at the same time.

4th When 2, 3 or 4 Epidemics appear at the same time & place, they all blend their symptoms together & one of them predominates over the rest & appears to make them pay homage to it by wearing its livery: for there appears to be a Monarch in diseases. Therefore Gent: take care in all your prescriptions to have an eye to the reigning Epidemic. Hence also we see the reason why broken legs or any other external cause produce Malignant fever, when the system is previously disposed to it. A young man, in the time of the Y. Fever, left this City to avoid it & on his way to Germantown was thrown from his horse & had his leg broken, he was very soon seized with a black vomit & in 5 days died.

5th The more powerful & reigning Epidemics not only exact homage from the weaker, but chase them

them away. Dr Sydenham tells us that the Plague in London in 1665 drove away the other diseases from the City.—

6th The Tyranny of great epidemics is lessened before their departure. hence the Small pox drove the Plague from Constantinople, & the Measles chased away the Small Pox from this City. The first appearance of an Epidemic may be compared to a Savage that attacks & destroys men, women & children; but when retiring to a Civilized corps of men, who spare the blood of the innocent. It is in this stage only that other diseases can take place.

7th They appear in a variety of forms & characters. 1st As in the Malignant bilious, remitting inflammatory intermitting fevers &c; in the three different forms of small pox viz. that with, & without Pustules & the Confluent. 2d They appear in different forms in different years & with different prognosis under different circumstances. 3d The same causes sometimes produce diseases of different forms & appearances; but still disease is an unit.—

8th Epidemics vary with respect to their violence in different season & persons, & even in different

* In one place it will appear perhaps in the form of Y Fever, in another of remitting fever or common bilious Autumnal fever - In a third part of the Country it will probably assume the shape of a bilious Colic or Dysentery The same epidemic sometimes affects different people of the same City, for a difference of Temperament - Thus in persons of the Sanguineous Temp: for instance, it will appear a violent fever - In persons of the Alimentary Temp: it will fall with all its force upon the bowels &c

ferent days.

9th Some epidemics require exciting causes, whilst others, such as the Small pox &c do not. –

10th They sometimes come on with great force & violence, & suddenly vanish in consequence of frosts & great rains washing away the cause wh produced them

11th They differ in different parts of the same Country*

12th – They are often limited to small Bounds

13th They often affect people of one Nation or colour, whilst Strangers & those of a different colour escape. In 1793 the Frenchmen & Negroes escaped the fever of this City.

14th – They sometimes attack persons of a particular age. Moses speaks of a Plague that carried off many children only. –

15th They sometimes affect persons of a particular Sex only. A Plague in Italy once carried off 60000 Men & scarcely a Woman. –

13 16th They sometimes affect persons of particular rank only. In France in 1757 the dysentery attacked the rich whilst the Plague in 1758 attacked none but the Poor. –

17th

* This compels a Physician to be a student as long as he lives — Epidemics are perpetually varying & their changes must be attentively watched

+ Unusually

14 17th They sometimes affect members of the same communities & families only.

15 18th They sometimes affect all nations, all colours, all ages & all sexes at the same time & place. —

16 19th They sometimes affect the human species only

16 20th They sometimes affect the human species together with Cats, horses, dogs, cows, sheep, fish & all others of the brute Creation. —

17 21st Lastly it must be observed that different remedies must be used in the same Epidemic, in different seasons & under different Circumstances. The same remedies wh cure the same Epidemic one year will kill the next. Bleeding will kill one year & cure the next. *

<u>Different Phenomena</u> that have been known to precede & accompany Epidemics. —

1st Hot, cold, dry, wet, & windy weather with rains more frequent, sometimes appear soon after or just before

2d Weather perfectly calm, so much so, that the leaves of trees were not seen to move & which authors have called "Sere Aura". Dr Wilson of Mouis Town relates the case of an Epidemic

Lewis

Boats

mic wh was preceded by a long calm, & smoky vapour. The white paint of Boston changed to a Yellow Colour in the Y: Fever of Boston. —

3° Diseases which precede Epidemics are more violent than at any other time. The diseases also which follow, always partake of a more inflammatory form, or are more Chronic. —

4th Cats appear to be affected in a peculiar manner previous to the appearance of an Epidemic. Birds have been observed to be more scarce, & even die in their cages during the Continuance of an Epidemic. Insects are more numerous previous to, or during the time of Epidemics; but the horse fly is an exception to this, for at such times they mostly disappear. —

5th Many Trees emit a peculiar disagreeable smell, prematurely drop their leaves and sometimes die. —

6th The pulse is preternaturally slow or weak during the continuance of an Epidemic. In one season it was uniformly preternaturally frequent. Persons who were in good health become sick in consequence of it but sometimes it happens that

that those who were debilitated previous to an Epidemic have become quite healthy in consequence of it; the Miasmata in these instances excited them up to the healthy point. Oysters and fish live a much shorter time during an Epidemic The Clouds affected the Patients in the Y. Fever at Charleston, by obscuring the Sun. Whence these changes? Nineteen out of 20 diseases are derived from the changes of the Atmosphere. If Epidemics are changed by so many circumstances, they should be observed as with a Microscope every day.

Some persons have supposed Epidemics to be a curse or a judgment upon them. Reason not only rejects but loathes such nonsense. Let old women & Children who assemble round a kitchen fire to hear the tales of Fairies & Hobgoblins, believe this.

Thus Gent: I have delivered to you such facts as I have acquired from observation & experience, during my whole life, & think it proper here to observe that it is the duty of Physicians to be students as long as they live.

Aliments &

Aliments & Drinks, as productive of disease. This is an important part of our Pathology. I have said before that 9/10 of all the diseases are received into the System by means of the Mouth & feet.

Aliments produce disease by their quantity & quality & 1st Of the Quantity. When great, disease is produced by an over distention of the Stomach, & by affording too much Nourishment The effects of too much nourishment will be in proportion to the exercise taken; it disposes to all the diseases of Plethora as Apoplexy &c. The quantity of meat should be regulated by the quality. The use of Aliment is not only to nourish the body but also acts as a Stimulant. A Labourer can take much more food with impunity than the idle & sedentary. The quantity of food necessary for a labourer is about ℔8 but for a Sedentary man from ℔4 to 6 is sufficient. Persons accustomed to a definite quantity become sick when increased or diminished. Chardin tells us of a Persian, who would eat ℔35 of water melon a day without injury. Lewis Cornaro limited

limited himself to 12 oz of Solid food & 13 oz of drink pr day by adding ℔2 he lost his health.

The diseases which arise from an insufficiency of food affects children, slaves, & monks, who thro' a false sense of Religion deny themselves the necessary support of life. Children at the breast are often diseased from the mother's not affording a sufficient quantity of Milk, since they are unable to live upon any other food. Diarrhoea Dysentery &c follow. Board^s Schools are another great source of disease.

Slaves are often diseased in consequence of having small allowances, & being made to labour hard by cruel & unthinking masters. Hunger appears to increase the Strength. It is said to increase the Strength of the Lion very much, who devours ℔20 of flesh a day when he can get it. Stimulus of the desire of food, & of life causes this increase of strength. Hunger is said to have great effects upon the temper, hence it is said to break down stone walls &c before it. It was in consequence of the strength & furousness of temper that was supposed to follow hunger that the

Duke

Duke of Marlborough used to say he preferred Scotchmen when hungry, Englishmen when full, & Irishmen when drunk, for an immediate Engagement. — Famine increases the excitability of the system, excites pain in the Stomach, renders the secretions & excretions acrid & hemorrhage from the Stomach, delirium &c close the Scene. —

Dr. Franklin used to relate the case of a Benjamin Lay of this State who attempted in imitation of our Saviour to fast 40 days. During this time the Dr visited him & found his breath so acrid, that upon shaking hands with him, it drew tears from his eyes.

2d. Of the Quality of Aliments. These are animal & vegetable. & 1st of

Animal Aliments which are the following

Fish were supposed to be the first animal food of man. A diet solely of fish produces Lice Leprosy, Itch Diarrhoa Dysentery &c. Food wholly animal produces fetid sweats Scurvy &c. and the animal food of Carniverous animals produces this effect in a much greater degree than when it is from graminiverous animal, old animals

more

more than young. A great difference between the effect of wild & domestic animals the former being much the most wholesome. The Indians who live altogether upon the wild are exempted from almost all the diseases to which we are subjected. Those who live on wild animals are swifter but not so strong as those who live on tame. The Indians are more active but not so strong as whites. —

Animal food when much exercised before killed produces disease; an instance of this occurred some years ago: A farmer killed a beef after working him very hard & sent the meat to market; the result was that out of 15 persons who ate of it 14 died — Animal food produces disease when putrid. —

2d Vegetable Aliment. Notwithstanding persons in warm climates live upon them, yet in other climates they produce disease. A diet wholly vegetable produces Diarrhoa, Dysentery, Dropsy, Dyspepsia, Costiveness, a disposition to Gout lessens the heat of the human body &c. Some are supposed to act specifically on the system as beans

* Oysters when overdone have produced Colic & sometimes death – Milk disagrees with many people – a supper of toasted cheese has produced heartburn & apoplexy – & however taken it always disposes to Costiveness. —

beans, which produce flatulency, hence the reason why Pythagoras forbade the use of them at his School. Oats are said to produce cutaneous diseases, & Chestnuts, when green, are said to dispose to mental debility. —

Many other circumstances independant of the quantity & quality of food, influence their effects upon the system. —

1st The preparations of aliments in Cooking, materially affect their Digestibility. *

2° Food when taken into the Stomach without being sufficiently Masticated produces Dyspepsia. &c

3° Too great intervals between meals disorder the Stomach. This should be avoided by carrying a little gingerbread or biscuit wh should be eaten between meals. —

4th Exercise or Rest influence the food in the Stomach, the former rendering animal food harmless, whilst a vegetable diet is more suitable to the latter. Some Philosophers of late have ventured to foretel that vegetable aliment will in time become the only food of the human race. —

5th Eating too much after fasting is a great source

source of disease. In a convalescent state, the most dangerous relapses are brought on by eating too much or taking a small quantity of animal food after having been restricted to a low vegetable diet. This is one of the greatest sources of unsuccessful practice. When families in Europe travel for Health, they are sometimes attended by a Physician, who regulates their diet, drink, drugs &c & the benefit derived from such a custom is considerable.

6th A sudden change from Vegetable to Animal diet or vice versa is very injurious to health.

7th An improper mixture of Aliments is likewise very prejudicial to health (see Inquiries Vol: 1st) However it is best to advise patients labouring under chronic diseases to eat of one dish only at a Meal. —

8th Food taken into the Stomach too hot or too cold, produces an inflammation of that organ &c Mr Reid died at N. York in consequence of eating ice creams. —

9th Novelty in articles of diet often produces disease & that too when the new diet is taken

taken in small quantities. Watermelons peaches &c are not received into the Stomach in the beginning of their Season without producing some unpleasant symptoms, & sometimes disease. It appears in this case that the Stomach forgets her old Companions, but upon recognising them, soon renews her Cordiality. The Stomach sometimes remembers her enemies for a long time & scarcely ever becomes reconciled to them. Some Years ago a single boiled chestnut produced a vomiting in me owing to a great sickness I experienced from them when very young.—

10th Food may remain a long time in the Stomach before it shews its pernicious effects. Once knew a lady not to be made sick until the 3d day after taking a small quantity of toasted cheese into the Stomach. I gave her an Emetic which by discharging the offending matter soon relieved her. Dr Haller says he has known food remain in the Stomach from one week to 7 Months previous to its producing disease— hence Gent: the necessity of enquiring

enquiring into our Patients food, for days, weeks & even Months & perhaps longer previous to the origin of the disease. —

11th Disease may be brought on by food cooked in improper vessels as Copper Lead &c Since the introduction of Silver & Iron, stomach complaints are very much diminished in number. Also by filth & extraneous bodies getting into the vessels used to convey food into the system. I once knew an instance of a whole family becoming sick in consequence of eating a baron of Milk, into wh a Spider had fallen. —

12th Animal food is sometimes rendered unhealthy from a peculiarity of diet on wh this animal has subsisted for some time previous to its being killed for our food. Some Families in Philadelphia were once diseased from eating a Parcel of Pheasants which were brought to market. The Physicians universally attributed this complaint to the cause I have mentioned; & these animals were condemned to be improper & poisonous The cause of this poison was from the Pheasants eating laurel berries, the only food they can get in winter, & is known

known to give a temporary poison to the flesh of these animals as well as to the Deer & some others. I once knew 60 Students at Princeton College to be affected with Diarrhoa from eating a Pie made of Pidgeons which had chiefly subsisted on the berries.

13th Salt diet when well proportioned to the state of the System is not unwholesome. The reason that children living in the Country are less affected with Cholera Infantum than those of the town is owing I believe to the salt diet used by the former, whilst the peculiar situation of the latter hinders them from any but fresh food. It were to be wished that our farmers would live on fresh meat in winter & on salt meat in the summer.—

14th There is an Idiosyncrasy which renders aliments wholesome or unwholesome to particular persons, & this Idiosyncrasy is Hereditary.— Many people can't eat fish —

<u>Condiments</u> as productive of disease

These are Salt Vinegar, Mustard Sugar, Spices Saccharine Substances &c

1st Salt is so universal & useful an article of diet that when it could not be obtained, ashes & alkalies were frequently known to be its substitutes. Some nations as the Brazilians & our Indians have never seen salt, but they use in its stead some alkaline substance.

2d Vinegar is both wholesome & proper in small quantities. But when taken in large quantities produces Dyspepsia Gastrodynea, Colic a disposition to Gout & a variety of other distressing complaints. In 1770 it was said to take down the fat of the system & induce leanness. Some of our Ladies then used it very profusely, & injured their constitutions materially by it.

3d Mustard. The same may be said of this as of vinegar. I once had a Gentleman & Lady with a very obstinate Gastrodynia under my care, & happening to dine with them observed that they used mustard & vinegar very profusely; I advised them to lessen the quantity of these 2 articles; they did so, & soon recovered. Patients often suffer from large quantities or peculiar qualities of food. Dr Zimmerman informs us

us that Frederick II^d King of Prussia fell a victim to his ungovernable appetite. He was an enormous Glutton, would eat times a day & took by way of a relish between breakfast & dinner a large Eel pie. He would never believe that he ate too much, & when spoken to about it, would always say that he only ate a sufficient quantity to keep soul & body together. He was remarkably fond of Condiments & the same Dr tells us that at the age of 72 his Kitchen resembled an apothecary's shop more than any thing else.—

4th Sugar notwithstanding it is the most grateful & nourishing of all condiments when taken in moderate quantities, yet when taken to an excess produces Dyspepsia &c Honey and Molasses when taken in excess also produces disease.

5th Spices when taken in small quantities assist Digestion but when taken in large quantities have a contrary effect.—

We will now turn our attention to the effects of Tea & Coffee. A Revolution has taken place in the customs Manners &c of every nation since the

the introduction of these articles. —

Tea principally injures by being taken too strong, hence kitchen women are more affected by it than their mistresses. Tea will sometimes bring on & sometimes prevent sleep; if the system be below the sleeping point then its stimulus may induce sleep, but if the system be excited above the sleeping point, it prevents sleep. Tea produces nervous complaints such as Hysteria &c when taken very strong & in large quantities; also Gout — hence the reason why women are more affected with gout than men, as I shall shew you hereafter. —

Coffee is a gentle stimulus & will sometimes produce all the effects of ardent Spirits. I knew a Physician in this City who always previous to his going out on a visit to his patients in the cold, drank a pint of hot coffee. It sometimes produces vertigo & other diseases, in consequence of wh. I always forbid its use in any one of them. Neither tea or coffee are nourishing, they only become so by the sugar & milk taken along with them. —

Drinks

Drinks as productive of Disease. These are Water, Wine, Beer, Cider & Ardent Spts.

1st. Water is the most wholesome & pure of all drinks, but it is sometimes like the rest, the cause of disease. It is the cause of disease 1st By its sensible qualities. Cold water injures the tone of the Stomach (that is when very cold) by its sedative effects. When the system is very much heated, violent spasms of the Stomach arise from drinking very cold water. The teeth are peculiarly affected by cold water. Mr Spence a dentist in this City informed me that he drew 3 teeth in summer for one in winter wh may be ascribed to this cause Water moderately warmed or suffered to stand half an hour in the air, never produce those dreadful symptoms, which are sometimes its consequences when taken very cold. It also quenches thirst better than when very cold; because this last abstracting so much the heat of the Stomach, leaves the System debilitated; in consequence of wh the system reacts so powerfully that a fever is produced, & water is again required to compose the fever; whereas water not so very cold produces no

no such effects, since the system has not to re-
act & therefore no fever is produced.—

2° By being mixed with unhealthy particles.—
Water in Cities is generally unwholesome for the
following reason, that the filth in necessaries wh
are dug 30 or 40 feet below the Surface of the earth ge-
nerally affect the pump water at the distance of sever-
al feet from them. It was on this account that Dr
Franklin proposed supplying the City with water fr
the Schuylkill. Ice in water beer cider & punch will
produce disease, but not in wine & ardent spirits. I
have known a case of death to be brought on by dri-
nking Ice punch. General Wayne was affected
in 1792 by 2 large draughts of Ice punch. Water
is most wholesome when running over beds of sand
or gravel.—

3° By the quantity & time at which it is ta-
ken. Cold water when taken at improper times
injures the System. The same may be said of it
when taken in large quantities. Many people in-
jure the System by taking large draughts of water
early in the Morning, or late in the evening just
before going to bed. This practice comes on by in-
temperance

temperance & is then kept up by habit. It is however a pernicious one, as also that of drinking between meals. The Indians scarcely ever drink until the evening. Large drinkers of water are generally great gluttons

2° Wine. has a tendency to produce Gout in the extremities. Here I must observe that gout in the extremities is always produced by fermented or Spirituous liquors. Gout may be induced in the stomach without them; but I never knew a case of Gout in the extremities except in persons who had been accustomed to those drinks. Wine produces Gout more readily in warm than in cold climates & has a tendency to induce costiveness when taken after supper. It is more wholesome when taken with food than without it

3° Beer like wine when taken in large quantities disposes to Gout & sometimes to Rheumatism. It has been said to produce Gravel, if so it is in consequence of its acidity. Dr Haller said that out of 100 patients who died of Gravel, not one upon examination had been found to use beer.

4°

* I have elsewhere said that I wished my Pupils to be distinguished by their Knowledge of, & attention to the Pulse - I here say I wish them likewise to be distinguished by their disuse of Ardt Spts - If any of you ever see a Physician with a red nose, or trembling hands, or see him in a Tavern drinking brandy, & who calls himself my disciple, contradict him, I disown him - he is not my disciple, but a Brunonian. They shd not be used as medicines lest our Patients contract an appetite for these detestable articles.

4th Cider may be drank with impunity by labouring persons; but in the Sedentary it is productive of Gout & Rheumatism. I knew a Gentleman & Lady in whom the Gout was always excited by it. The fruit from which it is obtained is often defficult of digestion, & in some stomachs productive of the same complaints. If a red hot Iron be plunged into cider & suffered to cool, its tendency to produce Gout & Rheumatism is entirely destroyed The iron acts by obtunding the acid.

5th Ardent Spts as a drink & source of disease See Medical Inquiries Vol: It may be proper however to observe here that their effects are experienced on the Nerves bloodvessels, Lymphatics brain &c also upon the Moral faculty. *

Dress as inducing disease. Who would believe that the dress first used to cover our nakedness after our fall from primeval innocence would be so used, as in time to constitute a part of our destruction. The diseases from dress arise from the quantity fashion & quality of our Clothes.

1st Dress too heavy in warm weather predisposes to disease.

2d Fashion is often a source of disease. By dressing too

too thin thick or tight. I knew a Lady who fainted immediately after she was dressed to go to a tea party from being laced too tight in her stays. I believe a great many diseases of the brain are brought on by tight cravats, shirt collars &c. Garters by preventing the free return of blood upwards, cause large knees anasarcous legs &c.

3° Quality of Clothing has a great influence over the system. Woollen or cotton clothing is best next the skin. Woollen clothes have many advantages when worn next the skin. 1st They keep up a gentle perspiration. 2° When wet they are not so disagreeable, so cold or so productive of disease. 3° They may be worn any length of time next the skin without producing vermin provided the other clothing be kept clean. — After having considered the diseases of dresses, let us next consider the dresses of diseases.

1st Hair powder is a dress of disease, as it was first put on the head in Poland to prevent the disease Plica Polonica. 2° Patches in the face were introduced by some drunkard to hide the pimples of his part. 3° Neck Cloths were first introduced by Henry to hide the deformity caused by the Scrophula.

4th

4th Boots were first introduced by Charles 1st to hide the deformity of his legs.

Poisons. Poisons are of a relative nature from the part they affect. As the Viper poison when swallowed is innocent. Some substances are poisonous for particular animals while they are food for others; or they are poisons to an animal in one state of the system, while in another state of the system & to the same animal they are innocent. Poisons are such substances which when taken into the system produce disease or death, & that they act relatively is proved by the following fact. The venom of the Viper has been swallowed without having any effect, but when taken into the blood-vessels it immediately kills. Poisons are only so from their quantity. A small dose of Opium is an agreeable stimulus, but if taken largely kills. Poisons are taken from either the animal vegetable Mineral or Acial kingdom. It belongs however to Natural history to point out the different poisons. It is my provence only to explain the manner in wh they operate. Poisons like Miarmata act by producing local inflammation. The bite of a Spider does not

not kill by its poisonous quality, but by inducing morbid excitement, inflammation &c & then bringing the rest of the system into sympathy with the part affected.—

2° In the Vegetable Kingdom we have poisons as Nicotiana, Cicuta, Hyosciamus, Digitalis, Lauro Cerasus, Datura Stramonium, Monkshood, Dropwort &c. Buckwheat so nourishing to man, is a poison to some animals, there are less dangerous as the Cashew nut wh acts only upon the skin.

3° Mineral Poisons are Arsenic &c

4° Aerial, are Aerial acid, Napthe Damoil and samoon winds & the different kinds of air unfit for respiration

Poisons have been supposed to act by destroying a certain something called the living principle; But since we have denied the existence of such a principle; it becomes us to account for its operation in another way. We said that the functions of the system were kept up by certain Stimuli acting thereon. In short life is a forced state, & consequently the way we account for the operation of Poisons is that they destroy the parts to wh

which they are immediately applied, & thereby destroy the ability in the system of discharging its various functions. They produce their effect in the same manner that a string tied round a bell, or a piece of wax placed around the string of a violin, prevents the emission of sound from either of them They act on different parts & are fatal in proportion to the importance of the part affected. When they act on the brain & produce death, they are taken in by the mouth, & destroy the excitement of the brain.

Poisons act Specifically 1st On the Mind. 2° On the brain. 3° On the Nerves. 4th On the Muscular system. 5th On the Lymphatics. 6th On the Sanguiferous system. 7th On the Skin 8th On the Stomach & Bowels, producing Vomiting &c 9th On the Lungs 10th Poisons act generally on the System as Opium. They produce in parts whose motions are essential to life, an inability to perform these motions, thus inducing death.—

Chemistry affords us examples in support of our doctrine of poisons. Mercury put upon gold destroys all its properties of ductility, malleability &c

Zinc

Zinc & Copper are both within themselves innocuous, but upon mixture form a fine, brittle sonorous, & elastic compound. Many other examples of a like nature might be adduced from Chemistry. May not therefore poisons act upon the blood by mixing with it & destroying its vitality. Formerly we looked up for power to Monarchs & Princes, but of late we have looked downwards & found it to reside in the people. Since that time we have been more wise & happy. But not so in Medicine: We have all been looking inwards for some invisible principle of life; but the theory I have offered directs us to seek for it from some external quarter; since this theory has been advanced, the Phenomena of animal life seem all more plain & simple. We must now look outwards for the support of life, & like the Indians with their Gods, think we see them in the Clouds & Winds

There are some poisons which do not destroy life immediately, (these are generally from the Vegetable Kingdom) but by a long & lingering illness, exhausting the patient, thrust him insensibly as it were out of the world. Their stimulus excites

a

a Hectic or chronic fever. This is the way I explain the action of those poisons used in the South-ern States by the Slaves to extinguish the flame of life in their Masters or Mistresses. The Miasma which produce Y. Fever sometimes kills instantly, but it nevertheless may & often does bring on a chronic disease. There are frequent instances of persons who have been poisoned, arriving again to perfect health. Even Arsenic itself sometimes yields to the efforts of the System to recover itself.—

Foreign Matters introduced into the System as productive of Disease.—

Worms.— From their universal appearance in all animals I am led to believe serve some good purpose in the human body, & that when disease is produced by them, it is either by their being in too large a quantity, or by their getting into some improper place. They are found in almost every part of the human body, in the Liver Bladder & Throat; frontal & maxillary Sinuses, brain & Alimentary Canal. The different kinds of Worms are the Lumbrici or round worm; they are red. The Tenia or Tape worm, acaudes

Ascarides & Ground Worm. These may be taken into the System either by Aliment; or are generated in it. I am induced to believe that only the Lumbrici serve a good purpose in the System, & this may be by consuming the superfluity of Aliment. The effects of worms are seen more in fall than in any other Season. Children are more subject to them than Adults. Some Nations are more subject to them than others. The French Italians & Germans more so than any other Nations

Worms produce disease only by their quantity, or by being misplaced. They have no effect upon the bloodvessels, hence then you see I deny the existence of worm fever. From what I have said Gent: you may think I believe there are few diseases resulting from worms. I would by no means inculcate such an idea. I believe there are few diseases of children but what are more or less owing to or accompanied with worms. I seldom therefore advise medicines in Chronic cases of young persons without at the same time having an eye to worms.

Anomalous or Extraneous bodies introduced

introduced into the Stomach, Lungs, Nose, Skin &c as productive of disease. –

I have known death induced by swallowing a cherry stone. Copper taken into the Stomach produces distress Nausea &c. I knew a Lady who swallowed a water melon seed, which went the wrong way, a violent cough ensued, but ceased as soon as the seed was discharged wh was much enlarged.

Children frequently push grains of Coffee &c up their nose the consequences of which are often bad as they tend to bring on Polypus &c

Pins often produce disease by being introduced into a part & not immediately extracted. I attended in Consultation a son of Mr R Morris with a sore in the groin, wh was not benefitted by any application, until a pin was drawn from it by a Mr Burke who was a member of Congress, & then it quickly healed. A Lady in this City had great pain in her Vagina for some time, however after a while she discharged a pin from that part & was soon brought to her usual state of health. Wounds from Nails especially in Fen-
dinous

Tendinous parts often induce Tetanus.

Shot Bullets & Powder frequently produce disease after having remained in the system a long time. I knew a young man who was affected with delirium every 2 or 3 years until a few shot were discharged which had been lodged in the bottom of his feet when young.

Splinters are frequently the cause of disease. I attended an officer about the time of the American Revolution, who had a pain in one of his legs in consultation with another Physician. We both agreed that he had the Gout & treated it as such. Some days after this there came from the place of pain a Splinter of about 1/8 of an inch in length which had been thrust into his feet some years before.

Paints Powder & Pomatum are frequently productive of disease, such as Head ache &c

Retained Excretions are productive of many diseases. Faces when retained for any length of time are very injurious: their effect however are different upon different persons. Many people go a long time without suffering any inconvenience

venience from the retention of their Foces particularly Sailors. I knew a Sailor that went from Philadelphia to Lisbon & back without having a single passage in the whole time. Dr Haller believes the great longevity of birds to depend upon the readiness with which they discharge their foces. There are many instances of persons going a week, month & even more without a foecal discharge, but in general it disposes to many diseases — 1st Dyspepsia & diseases of the Stomach. 2d The Piles in Consequence of the Foces hardening in the intestines. 3 Colic. 4th Inflammation of the Intestines by their irritation 5 Ruptures as Inguinal Scrotal & Umbilical. 6th Diseases of the Brain The most healthy time for an evacuation of the foces is generally once in 24 hours, but this period may be exceeded for a short time & no disease produced.

Perspiration when retained produces dryness & eruptions of the Skin, sneezing Colic Diarrhoa &c

Urine long retained will produce Gravel tenesmus &c

Bile when absorbed produces Costiveness, Jaundice, inactivity, diseased or false vision, making every object to appear Yellow obstructions or Schirrus of the Liver &c. The causes of this obstruction are brought on in 3 ways - 1st Spasm 2 Calculus or Gallstone - 3d Viscidity as in the Y: Fever. -

Semen when retained, how does it produce disease? I answer it does not unless accompanied with a preternaturally strong venereal appetite, then it may produce Plethora distention, & thereby Hysteria, Melancholy, Madness & Death accompanied with Priapism. -

Menses when retained produce a Majority of the female diseases whether of the Chronic or of the Acute kind. The suppression of the Menses, produces diseases of an highly inflammatory kind which stand in need of the Lancet & not of the Penny royal tea or other stimulating Medicines called Emmenagogues. -

Rest & Motion as productive of disease. - Rest by suppressing perspiration is unfavourable to health. Hence the necessity of imposing on man labour

labour after his Apostacy, to earn his bread by the sweat of his brow. This was a blessing in disguise.—

Women suffer less than men from a sedentary life

Sleep & Watchfulness. Too much sleep produces debility from Abstraction & disposes to Fatness, indigestion fatuity &c. 6 hours in the 24 are sufficient. Westley who lived to 80 seldom slept more than 4 in the 24.— Wakefulness is a relative term & depends upon Stimuli both as to its quantity & quality. The stimuli of the Passions will often prevent sleep without giving any injury. I knew a Card player who would sit up 2 or 3 days & nights without having any desire to sleep. Boerhaave once went 6 weeks without sleep. Haller tells us of a woman who passed 45 days without sleep. The want of sleep is sometimes owing to the debilitating passions of Grief fear &c. They act by reducing the System below the Sleeping point. But above all wakefulness is kept up or produced by fever. This state of wakefulness is exemplified in the anecdote of General Washington & the Indian Corn planter. In an answer to the General's reply he has the following words: "Your words contained in the great paper you sent me were like the Sun in the morning

morning to a fever sick man, which makes him glad but does not cure the pain

We come now Gentlemen to an important part of our Pathology viz — The Diseases arising from the intellectual faculties & the Venereal Appetite. A gentle exercise of the faculties of the mind is favourable to health; but intense thought brings on debility. 1st When too long continued, or till improper hours. Hence people who sit up late are seldom healthy. The midnight lamp for this reason ought to be avoided — 2d It produces debility when the Subject is disproportioned to the ability of the person. —

The Passions are divided into Stimulant & Sedative. The former as hope & act positively; the latter as despair & act negatively. These passions are divided into Chronic & acute, or in other words passions properly so called & Emotions. Sometimes the passions are mixed & then they produce different effects, as ambition with fear. —

Love produces different effects according as the person is successful or not. Those who are disappointed in love always love stronger after it, if

at the time with their being rejected, there is not something that will have a tendency to affront. For this reason Gregory in a legacy to his daughters told them that when they were addressed by a man whom they intended to reject to give a refusal in positive language, that he may have no possible hopes of future success. Unsuccessful love produces Dyspepsia, Hypochondriasis, Hysteria Melancholy &c.

Joy is a powerful Stimulant, & will sometimes produce Syncope & even death. The door keeper to Congress in time of the Revolution was struck dead suddenly through joy when he heard of the Capture of Cornwallis. When joy does not produce death, a great depression of spirits often follow & even suicide. Joy is greater when when the excitability has been accumulated by previous fear.—

Anger is a powerful Stimulant, produces a flow of blood with many other uncommon emotions of the system, & will even produce death. a Shoemaker in this City died thro' excess of anger because he could not avenge himself of the injury a

a parcel of Boys had done him by blowing tobacco smoke into his room thro' the hole of his door, also a miser whilst he was complaining to his tax-gatherer fell dead. —

Grief acts like a slow poison upon the System. It is one of the worst of sedatives; it produces Dyspepsia, loss of appetite &c. Grief when excessive will prevent a flow of tears. There is a point of Grief wh. may be called the weeping point; above or below which tears will not flow. Tears flow when excessive grief comes down to the weeping point hence Hypochondriac patients are so much better after the flow of tears, in consequence of this it appears to approach the Hysteria. Persons under deep grief sleep more soundly than at any other time.

Fear when excessive produces a quick pulse, dryness, Debility. Aphonia, Asphyxia, Mania suspension of labour pains & death. — Fear causes the hair to rise upon the head; to become grey sometimes in one night. A mans head became grey in one night by fear produced by earthquake which destroyed Lisbon in 1755. It acts on

on the Mind & sometimes annihilates the desire of life. Speech gives energy in time of fear, hence boys when under fear banish it by talking of any thing besides the subjects around them. It produces debility, & accumulates excitability, hence the reason why cowards perform great exploits. —

Terror is fear in a compound form, when combined with anger. —

Envy acts like a perpetual blister or issue

Ambition is an inflammatory fever of the Mind & has great effects upon it. A minister of State in Sweden died of a Colic in consequence of his being taken from his place. —

Avarice. Many have died (to use the common expression) in debt to their backs & bellies. It abstracts from the love of our country neighbours, friends, relations, servants, wife children, & lastly ones self. The following epitaph was written on the Tombstone of the Avaricious Arch-bishop of Canterbury

Here lies his grace in Cold Clay Clad
Who died for want of what he had. —

It is only by a knowledge of the action of the Passions in

in a simple & compound State, that a Man can have any influence over the minds of others. —

The Venereal Appetite when legally & religiously indulged seldom injures. It injures when indulged by persons too young or too old. The old are not affected unless they have young wives or husbands. When an old Man marries a Young Girl, he expiates his folly by his death.

It injures when accompanied by obscene books prints &c By medicines operating on the Organs of Generation as Cantharides — when gratified by onanism; By excess in Married men, which is relieved by Sacch: Sat: or Salivation & low diet By seminal pollutions; In women this produces Fuor Uterinus. The diseases are Dyspepsia Gonorrhoea Consumption &c

Different Situations as they influence health. I formerly mentioned the diseases of Society which are divided into the Savage Barbarous & Civilized, all of wh have their different diseases. As men advance in Civilization, fevers diminish & nervous diseases take their place

Different Governments. In Monarchial
Govern

Governments there is less sensibility than irritability, but in Republican the reverse.—

Different Religions. The Doctrines of the Christian Religion are more friendly to Health than those of any other.—

Different Employments. Farmers are Generally healthy. Carpenters are very long lived, because they labour in the open air. Fevers are more common in these two, & the scurvy to Sailors. Rheumatism is common to Soldiers as well as to Sailors Coachmen are subject to disease, in consequence of waiting out in the cold for their masters. Weavers are particularly subject to disease, as Dyspepsia Hypochondriasis, Hysteria Costiveness &c. The posture of Shoemakers & Taylors invites to disease Bakers from their living in damp Cellars, and from their being exposed to the dust of flour are subject to pulmonary diseases. From accurate observation made in the City of London, the average life of a Baker was found to be 3 Years. Smiths of every kind from their exposure to heat & Cold are subject to inflammatory diseases &c. Studious mean are subject to headache Dyspepsia &c

Hence

* Hunting is often a dangerous amusement exposing to wet, hunger, alternate cold & heat &c. it brings on many diseases: whenever the Ty Fever has prevailed here, persons imprudent enough to go a hunting never escaped it. –

Hence this last has been called Morbus Studiosorum. Judges are subject to Calculus from the long retention of their Urine. Clergymen to Dyspepsia Gravel & Consumption. Lawyers & Physicians are less subject to the diseases peculiar to the other classes of men, in consequence of their blending the exercises of the body & mind. Country Physicians from their excessive riding are subject to Costiveness, piles fistula in Ano, Rheumatism, Gravel &c. — I refer you to Ramazzini on diseases of different kinds of tradesmen. —

Different Amusements are hurtful to the System, especially to women from their standing before a glass, or under the hands of a barber in a cold room previous to their going out on a visit, Improper change of dress, The air of crowded assemblies, Dancing, I knew a person who died of a fit of Apoplexy when leading down in a country dance. The Theatre produces numerous diseases. *

Peculiar Customs as Productive of disease. There are a great number of diseases to wh particular fashions & habits of Men have given rise

* Sore Eyes, Cancer, Gout &c a child very much like his parents in the eyes & Forehead, will very probly inherit the parents disease

rise. The first of these Sources is dramdrinking in the morning to act as an Antifogmatic. This practice arose from the use of Spirits in the morning for the cure of intermittents in low & marshy places. It creates a fondness for Spirits throughout the whole day & lays the foundation for drunkenness. 2° The Practice of drinking wine bitters before dinner - this is a dangerous practice. If the appetite be good it needs not an additional Stimulus, & if otherwise, the bitters creating one beyond the power of digestion, will do harm by bringing on indirect debility. —

3° The Custom of women receiving lying in visits. The female system is then in a very excitable state & by no means able to bear the Stimuli of Conversation 4th - The tolling of Bells for the dead. This has a very bad tendency upon a sick person 5th Chewing Tobacco - See my Essays. -

<u>Diseases</u> arising from Unhealth Ancestors. These are Congenial & Hereditary. Of the first are many diseases as Measles Small Pox, Jaundice, Lues Venerea, Plague, Y. Fever * &c — Dr Russell says that in time of the Plague at Aleppo

many

many children were borne off with the Plague which their parents had. –

2d Hereditary diseases depends upon temperament & shape of Ancestors. Consumption is more frequently derived from the Father & Mania from the mother. It is remarkable that the Consumption seldom appears before 20 or 21 & madness not before the age at wh it attacked the mother. It is remarkable that the Consumption seldom appears when the Parents have been afflicted with Gout half the intemperance will bring it on in the Children. Gout Hysteria Hypochondriasis & Leprosy are all Hereditary diseases. Besides Congenial & Hereditary diseases there are family diseases as Epilepsy Palsy & There are many instances of diseases skipping one or two generations & then shewing itself. You must not then confine yourself to the parents in searching for the source of diseases, but you will often have to go back several generations. A Regard to the operations of medicines in Hereditary Complaints is necessary – what was good in the same case in Ancestors; for there are family medicines

cines as well as family diseases. This is of such consequence, that I wish all those who have diseases communicable to children would likewise leave with them the remedies they had found useful.

Diseases arising from the improper use of medicine. These have arisen chiefly from the injudicious confidence in false systems of Medicine & wrong ideas in the operations of medicines. The false systems of medicine from Hippocrates to Brown have slain their thousands in the hands of weak physicians. That Physician perhaps will have the most success in his practice who borrows a little from all the systems. Many hundreds have died in consequence of the publication of Dr Chain on regimen by living on diet so low as not to be sufficient to support life — From taking Opium upon a supposition that it is a sedative according to Dr Cullen. From a confidence in the Asthenic diseases of Brown. But think not Gentlemen that I do not hold out for a Theory in Medicine. There have been & are yet many false theories in medicine which have done much harm. But we ought

no

no more to reject entirely the truth of theory in medicine because of the different spurious ones, than we ought the true religion, because there are many false & injurious ones in the world.

The injudicious confidence of the operations of nature is also a cause of many deaths. This injudicious confidence is just as absurd as to believe in witchcraft or animal Electricity.

One grand argument in favour of the operations of Nature is, that she is the only Physician of the brute creation, but this prover too much. Brutes seldom recover from a slight disease, such as we could cure in many by the application of a few simple remedies. But in this enlightened age Nature seems to be the Pagodo of many Physicians. If the regular bred Physicians have done harm by the means just mentioned, how much more must have been done by the

Quacks & Mountebanks. I once saw a dialogue between a sword & Rum Hogshead disputing wh had done the most in destroying man. Had a representative from the Quacks

kept

slept forwards he would have gained the palm with ease. —

Diseases arising from the imprudent or habitual use of Medicines with or without the advice of a Physician. —

1st Purges. These when given too often dispose to Costiveness & thereby call oftener for their exhibition. Different kinds of Purges do injury to different parts of the system. Aloes dispose to Piles; Butternut pills dispose to Vertigo Paly &c Glaubers Salts to a debility of the Intestines. Purges are often given to prevent eruptions &c but abstinence from animal food would be much the best

2° Emetics. The habitual use of these produces Dyspepsia & other complaints of the Stomach, & by that means affects the general system, they produce ruptures of all kinds. —

3° Bitters induce indirect debility Dyspepsia &c & dispose to dramdrinking &c. Exercise is the best of all Tonics with a well regulated diet.

4" Nitre has produced Dyspepsia, a disposition to Colic &c

5" Ef. used in the Spring without disease induces

induces Plethora Apoplexy &c Abstinence in the Spring is much the best

6th Sudorifics habitually used injure the System

7th The imprudent use of the warm or cold bath disposes to many diseases, but when the warm bath is used in the predisposing or forming state of fevers, it is an excellent & valuable remedy,

8th Pediluvium when indiscriminately used as often does harm as good, in predisposition to disease it has been of immense service, but when morbid excitement prevails, it produces delirium & increases every symptom of the disease. A Pint of Wine will do as little harm when the disease is formed as Pediluvium. —

9th Diets & Drinks suggested only by false theories of Medicine produce many diseases. —

10th Exercise in excess is hurtful especially in fevers

11th Quack medicines of all kinds have swelled the bills of Mortality. Thus Godfreys Cordial has destroyed many Children. I have seen it once destroy a child in this City. Turlington's balsam has produced inflammation in the bowels & even death. Even the so much famed

famed Portland Powder has done considerable mischief. But sometimes medicines produce mischief in the end when they appear to do neither harm nor good in the beginning, & that too in the hands of Judicious Physicians. This arises from a peculiar Idiosyncrasy in certain constitutions; hence Gentlemen you may see the impropriety of blaming your brethren in Medicine too suddenly. –

Sympathy & Antipathy as inducing disease. This Gent: is a difficult subject. That sympathy should exist in minds is easily imagined; but that it should exist between bodies is not easily imagined. The diseases of Sympathy in bodies seem accountable for upon the consideration that man is an imitative animal. This principle of imitation is a deep seated principle in the minds of most of the human race. It is to this that I refer Yawning & gaping wh are so infectious in large assemblies. To this likewise I refer the sore eyes wh sometimes arise from viewing those that are sore. Even convulsions have been communicated by

* All these people are rendered liable to disease from their antipathy which other people are exempted from. For instance a person having an antipathy to a Cat will be excessively agitated & perhaps made sick by being confined in the same place with one, but this would have no effect on an ordinary person. –

† This enquiry may be answered by another. viz – How extraordinary would it be if during the life of man, among the ~~the~~ thousands nay tens of thousands of events & ideas which occur there should not be often a coincidence of ideas & events

by sympathy, also stuttering, the Jerks as they are called &c

But how shall we account for that intuitive evidence wh some people discover in finding out events to wh they were entire strangers as to any external cause. Dr Johnson says that Lord Roscommon when a boy at school in France was suddenly when at play impressed with the idea that his father was dead who was then at the distance of more than 300 miles from him. Some it was his father died at the time in wh the idea struck him. †

Antipathy, is often congenial & acquired some men are born with an antipathy to water, as Peter the Great; while King James was born with an antipathy to a sword; others to Cats Dogs, rats &c I once heard of a man who could even tell when there was a cat in the room, without seeing or hearing it. This must be owing to certain effluvia of the animal he hated. *

Diseases arising from the Association of Ideas & Motion. Of the former it is well worth attending to; there is scarcely a disease in wh this

this association is not present. Of the latter they are numerous 1st If a man accustom himself to make water first before going to bed, he will be sensibly affected by omitting it once. 2° A Lady who took snuff profusely was at last taken with the Palsy & became incapable of raising her hand to her face, which she could very easily do when Sal Comm Cervi was applied to her nose. These 2 facts are sufficient to prove the power of the association of motion. It is by this association of motion I account for the periodical returns of paroxysms in Intermittents &c That it is so is proved by these paroxysms being prevented by exciting a new action or mode of association in the system. This riding on horseback cures intermittents by breaking the chain of association. Salivation & travelling has had the same effects in Epilepsy

<u>Diseases from Accidents</u>. I once saw a case of Hydrocephalus Internus brought on by a stroke of a hammer on the head 18 months previous to it. And another of a pain over the eye in a man who had been frequently raised by the head

* I never knew a man live to be old who was subject to Stomach Complaints. We sh^d never eat what disagrees with our Stomach. It is the Conscience of the body

Europeans by coming here after they are 40 generally add several years to their lives

⊕ It is computed that 78 out of 1000 die of old age.

head when a child. A Mr Campbell was taken Maniacal at 23 from the kick of a horse wh he received at 15. You see here that we have to go back days Months & even years for the remote causes of disease

<u>Diseases of Time or Old Age</u> See my Inquiries. I shall however mention such facts as have occurred to me since their publication. 1st The state of the Stomach greatly influences Longevity.* The Signs of a healthy stomach are 1st An appetite & an Ignorance that we have one — 2° That we hear no more of the Food after we swallow it i.e. no signs of Flatulency, heart burn &c

2° Migration influences the approach of death. Old persons frequently prolong their lives by Migrating from one country to another situated in a more southern latitude. #

3° However long some people live few of them die of old age ⊕

4th It is computed that only 6 out of 100 reach 60 years

5th More women live to be old than men but more men to be very old than women.

Predisposing

* One half of the children born, die before Puberty, more die in warm than in cold countries; more among poor people than those in easy circumstances _ more Boys die than Girls

Predisposing Causes of Diseases.

These are either Natural or Artificial. The Natural occur in different ages & conditions of the system as

1st Infancy. These arise from the disproportion of the head & consequently the greater determination of blood to that part. Hence eruptions behind the ears, tenia capitis, apoplexy, Hydrocephalus &c. Infants have also less sensibility but more irritability than adults, hence they are more disposed to Convulsive diseases of the bowels stomach &c Dentition not only produces painful & swelled gums, convulsions, fretfulness &c but I have seen it produce swellings of the inguinal glands & Gonorrhoa. Worms, tenderness of the skin, passions &c all become the source of disease in infants It is computed that half the infants die under 7 but more certainly 10 –

2° Childhood & Puerility. The diseases of infancy are nearly applicable here, irritability still predominates over sensibility. *

3° Puberty. In this sensibility begins to get the upper hand of irritability. Here febrile diseases

* Most of these diseases may be prevented by
use of Purging & low diet

diseases of an inflammatory nature begin to take place; as Phiris, Catarrh, Dyspepsia Hypochondriasis &c.*

4th Adolescency or Manhood takes place at 18 & continues till 36. The diseases of this age arise from a determination of Blood to the Organs of Generation. They are diseases of the Stomach, Dyspepsia, Hysteria, Hypochondriasis pain in the limbs & Joints, swelling in the neck & groin, giddiness in the head, & those wh arise from the exercise of the Venereal Appetite. From the 36 to the 46th year of our life the veinous plethora prevails over the Arterial; from 40 to 57 there is better health more happiness & fewer deaths than at any other period. The excitability & excitement being equally proportioned to each other. But old age soon comes on — the menses in women now cease. As soon as man begins to use Spectacles, he may be said to have put on a part of his shroud, & when he rises in the night to discharge his Urine, he may then be said to have advanced the first step to his grave. From 57 to 63 the system is predisposed to Colic

vertigo

* The excitability of the whole body seems absorbed by the arteries

Vertigo & apoplexy. From 63 the system gradually decays. It is then that a second childhood is produced, & here again excitability predominates, thus a man who at 40 would drink his bottle of Madeira, would then at 60 or 70 be intoxicated with 3 or 4 Glasses - It is at this period that the Grasshopper becomes a burthen - they are more disturbed at trivial incidents, & are more sensible of the Changes of heat & cold. After this as the body advances to 80 or 90 the sensibility of the Nervous system decreases & the excitability of the Arterial system increases & the body is very liable to inflammatory Complaints * Dr Chovet & Franklin died of an acute inflammatory disease between 80 & 90. The fluids of Old People become acrid by age; as the tears urine, gastric juice mucus of the nose &c - hence trifling sores often terminate in Cancers at this time of life, & bruises end in Mortification. Here muscular weakness also attends. Hence the shaking of the knees head & hands. -

The diseases of Old People are Chronic & Acute. The former attacks 1st The bloodvessels

2d

2° Nervous 3° the Muscular System 4" - The Brain 5" The Alimentary Canal. Some old people take a pride in shewing their strength by standing & exposing themselves to cold; by this they not only often suffer sickness but even death. Few people die of old age, they are frequently said to die of old age, but when this is the case they leave the world without pain, & death is nothing more than sound sleep. Dr Priestly told me that his father died of extreme old age. He was sitting in his arm chair surrounded by his family & with these words he breathed his last. "that he felt no pain whatever.

Conditions of the System in single and Married life as predisposing to disease.

Married People are generally of longer life than single. Single people are more subject to Hysteria & Women are disposed to disease from disappointments in Love. Men are often diseased after Marriage, but this is not the case with women. -

Barenness is often a source of disease. I once knew a barren Lady who upon seeing a pregnant beggar

beggar said "I would be that woman with all her rags if at the same time I could be with Child" Batchelors live a Hypochondriac life. It has been said that a batchelor's life is a good breakfast, tolerable dinner but a very bad supper. Pregnant Women are subject to acute diseases. The Consumption is suspended during pregnancy, because the inflammation of the Uterus is so great as to take the determination from the Lungs; but when the Uterus is relieved of its distention, many other diseases may arise from the abstraction of its former stimuli. Pregnancy predisposes to Costiveness, Vertigo Mania &c Sucklingchildren to Consumption, & a suppression of Milk to Cancers, tumors &c. There would be few Cancerous Uteri if V.S. were more used about this time of life. Some diseases are apt to produce abortion as influenza even when Moderate; while the Small Pox & others of a More powerful Nature do not. The Menses cease to flow between 45 & 50 when the system becomes Plethoric & disease may be prevented by occasional V.S. Purging low diet &c exercise

Deformity

* One disease badly cured disposes to another, thus Pneumonia badly cured disposes to Consumption, Intermittents to Jaundice Dropsy &c

Deformity in size, or the configuration of the whole or any particular part of the body predispose to disease. People uncommonly large or small are apt to be short lived. Very tall men according to Dr Darwin seldom live over 25 or 27 years. Dwarfs in general are short lived. The following is an exception - the dwarf that was brought from Germany in the time of George 1st lived 80 years. Those who grow very fat before 40 are generally short lived - Large heads & short necks dispose to Apoplexy. Narrow Chests to diseases of the Lungs. Montaigne says that deformity of particular parts dispose to an increase of the venereal appetite. Women suffer less from deformity than men. Congenial weakness of a part or of all the body dispose to disease.* The present King of England is only a 7 Months child, but in consequence of his temperance has reigned many years. - Of all the parts of the body the Stomach Liver and Spleen are the most susceptible of disease.

This Gentlemen finishes our Pathology, & I again repeat - that there is

but

* I must not conclude this subject without taking some notice of the causes & Phenomena of Death

Death follows the absence of stimuli which support life. These stimuli losing their effect by repitition, the excitemt being smothered as it were by the excessive force of impressions &c Morb: excitemt just before death fixes in succession on different parts of the body. Falling upon the Brain it elevates the Genius above its ordinary exercise, gives occasionally more talents; as a talent for Poetry Music &c. renovcitates dormant impressions so that a language long since forgotten is spoken again. Transferred to the Trachea & Glottis, Morb: ex: just before death produces a very strong voice, the rattles &c. Transferred to the Stomach, a wonderful appetite is excited just at the approach of death. To the muscles it produces Rigidity in them & Convulsions. To the Penis producing Priapism. To the Arteries producing activity of pulse to the wrist. Morb: excitemt just before death, whether fixed diffuzed or flying is frequently attended with great pain, wh pain is constant, or attended with intermissions. Death for old age is never painful. Sometimes at death morb: Ex: becomes stationary at the point of pleasure & the person feels pleasure while dying. Death is often attended with great fears of futurity, but sometimes even the most wicked are unconcerned about futurity. The Coldness attending death generally begins in the toes

but one disease – Morbid excitement; but one Predisposing Cause – Debility; & but one exciting cause – An irritant. – *

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toes & fingers but sometimes in the wrists. There has been many disputes about the Ultimum moriens. I am of opinion that this depends very much on the nature of the disease the person die of. The Stomach & Bowels generally retain their irritability for some time after death, tho' I am disposed to believe it continues for some time after the action of the Heart and respiration have ceased. Heat & Colour often fluctuates in the body for 2 or 3 days after death. A Yellowness of the Skin often takes place at the moment of death. The Pupils of the eyes become less. –

Therapeutics

* Chemistry Materia Medica, Anatomy, Physiology &c are all valuable only because they throw light upon the practice of Physic & cure of diseases. All these branches are necessary to be understood by a Physician, & also Surgery & Midwifery. Therapeutics or the art of curing diseases, formed upon a knowledge of their causes I have uniformly considered as a Science. Medicine has improved in proportion as it has become a Science & recieved aid from other auxillary Sciences. I shall not give you a particular History of Medicines & their doses that I leave to Dr Barton. I shall only give you a general account of the tools or medicines you are to use, & the manner of using them.

As much controversy in Anatomy Chymistry as the practice of Physic

19 in 20 on Morbid subject to discuss —

all mad act by increasing or lessening motion or sensation, or removing motion —

Therapeutics.

Gentlemen

After having considered the remote predisposing & exciting causes of disease we proceed to Therapeutics, & view the system in a morbid state with the debility predisposing & following disease. *

The first article in our Syllabus on Therapeutics is respecting the power of Nature in curing diseases. What is at present called the supposed powers of Nature was the Anima Medica of Stahl. The supposed powers of Nature arise entirely from Physical Necessity. Nature in Physical no capacity

1st There are however cases in which Nature cures diseases, such as in fevers, causing a dislike for food; in Hemorrhages causing fainting & consequently a collapse of the vessels, & in wounds by supplying new bones & flesh. of flesh & bones distinct organs foreign in nature

2° There are cases in wh. Nature is too weak & feeble to do service, as in Malignt fevers. or light

3° In Mens not proportioned to the disease as in

1 consider country city village in rel. the disease
2 local circumstances. Bilious fever loses analogy as we go from the Delaware to Schuylkill —
Let first in setting out in practice let independence of British books
If practice in American climates —
Our atmosphere is warmer colder dryer atmosphere —
Never lose sight of laws of Epidemics in our pathology —
Learn to discriminate an epidemic when under form of a common disease —
It belongs to diseases not only to vanquish but to extinguish diseases — Study nation habits diet drop moral habits —
Dr Reynolds the late could not cure with equal ease the diseases of the South here by the same treatment as American —

in Cholera Morbus & Dysentery

4" Entirely idle sometimes, as in Chronic Gout, Epilepsy, Mania, Cancer & Syphilis. — apoplexy,

5" Sometimes does mischief as in Dropsy & Consump

6" Sometimes refuses her aid as in Aneurism & Schirrus

7" She Sometimes excites less pain than is proportioned to the disease as in Tetanus. & sometimes more as in Toothache & Whitlow. —

8" Nature is weak in the diseases of domestic animals, for in these disease & death are very nearly connected, especially in Epidemics. —

I am not the first who opposed the operations of Nature in curing diseases. Sydenham & Meade were long ago opposed to the operations of Nature. The efforts of Nature in the cure of Diarrhoea & Pleurisy, bear no resemblance to the action of Opium & the Lancet which are our sovereign remedies. Nature in health is like a man in his senses, but in disease like a madman. She may be compared in disease to a drunken man in a dark room, who after finding the door, stumbles against it, breaks it down & ends his existence at the same time. In short when you

are

Soldiers in Revolution had their diseases with nostalgia & veiginaeus pseudalgia —
Forms of government should be known by a Physician —
Attend to occupation of patients.
A Debilitated carpenter will not be strengthened by exercise of his trade, he must use some other —
Attend as well to the habitual chronic diseases as to the predisposition —
Attend to peculiarities of constitution natural or acquired —
Enquire into diseases & habits of ancestors — also into habitual diseases — attend to ages &
Blisters behind ears should batter in children & require more med as calomel in dentition —

are called to prescribe in acute diseases you should serve nature as a noisy cat or dog in a sick room i.e. turn her out of doors. In the cure of diseases however, the operations of Nature may be attended to but not trusted. In Epidemics if the bowels are affected & shew a tendency to carry off the disease by discharge, their operation should be assisted by the exhibition of purges. If hemorrhage from the Nose attend the disease, bloodletting will be proper. If boils or Eruptions on the Skin appear, substitute an artificial disease on the surface. If sweats accompany the disease, sudorifics shd be administered. Lastly if sore throat or a disposition to Cough attend, mercury should be administered to expel the morbid matter. You see then Gentlemen that Physicians shd be the Masters & not the Servants of Nature as Hippocrates said.—

One outlet to a disease shd not be solely depended upon, altho' it may be sufficient in a few very mild diseases, yet every avenue & outlet thro' wh. it may possibly escape shd be opened.—

There are some diseases wh. shd not be cured by

never loose sight of remote & exciting causes of Disease— The long cause has acted & the more violent the exciting cause the worse will be the disease—

Are there any incurable diseases— Bacon says no— There are [illegible] in womb of time for all diseases— Recollect— Mercury in venereal— always Dang'r to cure eruptions— piles in old people &c— In intermitting fevers succeed vertigo, epilepsy, palsy and madness— Gout should be cherish'd in [illegible] [illegible] [illegible]

* Gonorrhoea sh^d not be cured when it has suspended other diseases of more violent action

by art. Eruptions on the heads of Children sh^d not be cured unless some other mode be instituted to carry off the Matter. — Diarrhoea often sh^d not be cured. The bloody piles in old people sh^d not be cured unless we substitute some vicarious discharge from the body. Intermittents succeed^d Madness or Palsy should not be cured. Mr Bond advised his Maniacal patients to visit a Marshy country & thereby get the intermittent as a palliative of Mania, but B.J. in this case would have been much better. Gout & Rheumatism succeeding Mania & sh^d be cherished. Dr Monro had a daughter that was twice taken with Mania upon the retrocession of the head ache. —
Old ulcers or Sores should not be cured up because Apoplexy & Palsy often succeed a sore thus cured, unless some vicarious discharge be substitated. Death has often been brought on by curing sore legs in old people. Ascites should not be relieved by tapping after remaining a long time for it is rarely cured by it. —*
Dr R has seen death succeed tapping after a few days. Habitual Sweats from the feet should not be

Fellers & cuni- Sore Should of old people
be approached with caution -
Cronic cough in close of life -
Ascites tappe when long con
tinuance, take care how you
taps -
Habitual discharge of sweat
from feet, not checked -
Diarrhea
Gonnorhea
Itch & Hyps
are there Specific -

stopt. There are some cases in which Pain sh^d not be relieved but these are very few.

In Epidemics we ought to pay particular attention to the Climate & all local circumstances, to the seasons of the year, heat & cold, dryness and Moisture. There are no successive Epidemics perfectly alike in different years, consequently the practice sh^d be suited to these different Circumstances, & regulated by the National Predispositions, habits, dress, customs &c Attention ought always to be paid to the Country from whence the Persons came. Intermittents when they attack a native of Ireland frequently require V.S. & seldom yeild to the bark after he arrives in America, until the use of the Lancet; while in the Natives of the Middle states intermittents generally yeild to the Bark alone. The particular desires & longings of the Patient sh^d also be always attended to. In the time of the American Revolution, the soldiers of Eastern states were affected with Nostalgia while the Virginians longed for Salt bread & corn pork Appetites however singular sh^d not be neglected; nor

are

the forms of Government or Religion. Individual Predispositions, & habitual diseases or habitual remedies are not to be left out of Consideration. In Chronic & Hereditary diseases, you sh^d look back as far as the 2^d Generation Whole families are sometimes carried off by diseases contracted by peculiar habits. witness Dr Craig's family of Alexandria all whose children have died with Consumption, whilst both his wife & himself remain in good health.—

The age of men, the state of hemorrhoidal vessels & the Catamenia in women are not to be overlooked, also worms in Children sh^d be had in view in our prescriptions.—

There are often recent causes of diseases which Physicians sh^d always have in view, as hard drinking, intemperance in eating, guilt, debt, love, envy, mortification &c &c should be sought for from their friends, acquaintances or enemies, & not from the patient himself.—

Physicians must frequently look back months & even years for the causes of disease. The removal of the remote cause as Celsus says (for these

These are his words "sublata causa tollitur effectus") will not cure the disease; for the Hydrocephalus internus of Children to wh worms predispose is not cured by the removal of the worms. In the treatment of diseases, hope as far as consistent with truth & reason sh^d be inspired into our Patients, for it is the best vehicle of medicine, & the greatest circumspection is necessary that not even a doubt be expressed, for it defeats the intention of medicine. The principle of faith sh^d also be attended to - hence quacks so often succeed in the cure of diseases. -

The predisposing cause of all diseases is debility, it seems to be a Mechanical power in Medicine

There are perhaps no diseases wh do not appear to have alternate exacerbations & remissions, which sometimes require different & even opposite remedies. In the first case sedatives are necessary. In remissions debility is frequently present & requires the administration of Cordials. In Chronic diseases the patient sh^d regularly take his medicine; it is frequently of very great importance to advise patients to continue

tinue the use of their medicines, even when they feel the least want of them. Debility is not confined to days weeks nor to the forming state of disease, it frequently succeeds it, in wh case the patient shd continue the medicine wh cured the disease for months & even years. Disease may be compared to a garrison the besiegers of wh shd never be idle unless there be a certainty of bringg on a Capitulation by starving the people within

Choice of Medicines. Formerly they were thought to be valuable in proportion to their prices. I suppose that all diseases may be cured by few medicines, wh by being better known will be more certain in their effects. An advantage frequently arises from concealing the names of Medicines

Respecting the operation of Medicines 2 opinions have prevailed. One is that they act more certainly in a simple form while others contend for the advantages arising from combination. These opinions appear to be reasonable. The Bark Opium &c are generally best when exhibited in a simple state, while sugar

enables

enables the Stomach to retain medicines wh it would otherwise reject. In this case a weak pleasurable sensation overcomes a powerful disagreeable one. Bark & Valerian combined will cure certain headaches, but when seperate avail nothing. Opium & Alkali when combined will cure certain cases of Tetanus, yet when seperate avail nought. Dr Fordyce contends for the advantages arising from compound medicines, & says that allum is a greater astringent when combined with rose water than when alone. Dr Hall also contends for the combinations of Medicines & says that some Medicines are strangers & enemies to the system & shd not be introduced into it without their guides or Spies. Squills & Gum Ammoniac when combined form a better pectoral than either of them seperately. — Tartarized Antimony & Ipecachuana form a better emetic than when seperated. Capsicum & Pepper give no heat & pain in the Stomach as they do when seperate. Neatness & cleanliness should be greatly attended to in the preparations of our medicines. Writing the name of the Patient on the paper of Medicine

* It is of consequence to recollect the different effects of Medicines on Adults & Children, for Sach: Sat: will cure Epilepsy in Children, but not in Adults —

It is our duty to attend to all the cases to wh. we are called, whether they seem to be desperate or not. In prescribing a doubtful remedy for a desperate disease, we sh.d do well to imitate Dr Cullen who once requested a Clergyman to advise Ef. when he was afraid to advise it himself. —

⊙ The best medicine that can be used is sometimes no medicine at all. If unfortunately the patient is constantly wishing to take medicine feed him up with bread pills, or some other convenient article, on wh. he sh.d be encouraged to place confidence. —

medicine should always be done. *

Drawing the mind from itself, or in other words drawing off the attention of the patient from his disease is very beneficial. Dr Cadwallader was very successful by this practice. He once by reason of his great humour prevented a man from committing suicide. The tone of conversation shd be suited to the State of the mind - hence mirth is sometimes beneficial & sometimes prejudicial. Mentioning high priced medicines to persons who are unable to purchase them shd always be avoided #. Physicians should never advise patients to make their wills for they might as well pass sentance of death upon them; but they should always inform the friends of the Patient concerning his danger, that they may be prepared. ⊙

Concerning the operations of medicines there is more fallacy in the opinions of Physicians than on any other point. Dr Fordyce says that the best effects of Antimony in fevers is to produce a relaxation of the Skin, whilst Dr Cullen thinks that Nausea is of the greatest advantage. Since we reject empyricism, we must always prescribe

for

* Remedies for preternatural excitement - gentle Physic & in some instances V.S. Debility when it precedes disease - the remedies rest & gentle Stimulants - these ought vary accordingly to the seat of it. Debility when it falls upon the Bloodvessels requires different stimulus from what it does when it falls upon the Lymphatic System. —

for the symptoms of disease, & as consultations may be useful in some diseases, as compound medicines, they sh^d always be resorted to. —

1st As Iron sharpens iron so will the opinion of one Physician assist that of another.

2^d Novelty of 2 or more Physicians may inspire hope & even confidence in the Patient. —

3^d Responsibility is divided between the consulting Physicians

Cases in which a Consultation is Necessary.

1st In doubtful cases — 2^d In dangerous tho' not doubtful. 3^d In uncommon cases 4th In desperate cases. 5th When new medicines are supposed to be proper. 6th In cases where there will probably be an appeal to justice, for the life of a Patient should not depend upon the testimony of any one man; or at least a Physician would not be willing to bear testimony alone, when the life of a human being depended on his opinion. In consultations choose Physicians whose principles are similar to your own. Two modes of practice tho' each may do good when Seperate, yet when combined always do harm. — *

We

We come now to the Application of Our Principles

1st effect of impressions on healthy excitement is to elevate it up to 60 on our scale, & produce preternatural excitability.—

2° Debility from action is produced by a longer application of impressions. The system is now at 40. If you abstract or add impressions the effect is the same viz debility.

3° Depression the system is now at 30. these states of the system are attended with accumulated excitability, if the impressions act suddenly

4th Disease or Morbid Excitement is produced by a still longer application of impressions, but if these impressions act gradually both excitem.t & excitability are worn down & no disease is produced.

5th Oppression, Prostration, Disorder, Debility or Suffocated Excitement, ~~(is produced by a still longer application of impressions, but if these impressions act gradually~~ the system is now at 20

6 Prostration the excitability is now smothered & the system cannot react; new & different stimuli must now be used to rouse the latent excitability, which is enveloped as it were, & will

not emit the motions of life.

7th Disorder —

8th Death. —

When debility is suddenly induced, it is attended with accumulated excitability, & should be treated with low diet, rest & gentle medicine, but when debility is induced gradually, we must gently stimulate. Elevation shews itself by alacrity wakefulness & an increase of appetite Depression is followed by a tendency to disease sometimes, in this case depletion should be used, but when there appears to be no tendency to disease stimulants shd be used. We must equalize excitement & divert it from vital parts, by depletion or stimulants

Medicines have been divided into sedatives & Stimulants. The 1st Class viz Sedatives act by abstracting & reducing morbid excitement. The 2d viz Stimulants act by equalizing excitement by creating a new action, by diverting it from parts more essential to life to those wh are not so much so by rendering it nature, & to diffuse it equally. —

Sedatives are divided into direct & indirect. Those which act directly by lessening the Stimulus & abstracting morbid excitement are

1st Bloodletting

2d Cold applied either by air, water or ice, when the system is above 96 & the skin dry. —

3d Fear this reduces morbid excitemt. by abstracting the Stimulus of Courage. —

4th Abstinence. This is of different grades 1st Refraining from fresh animal food. 2d from salt meat. This is not so nourishing as fresh meat since so great a quantity of it cannot be taken — 3d From fish. 4th From milk & saccharine matter. 5th From liquid aliments of all kinds. Abstinence acts in 3 ways 1st By lessening the fulness of the bloodvessels, 2d By abstracting the stimulus of, & 3d By creating when great hunger is induced a new action & thereby diminish^g morb: excitemt. The operation of abstinence is too slow in acute diseases & is only to be trusted in chronic cases; & in those cases of debility where it increases excitability, & thereby leaves greater room for the action of Tonics. — The three following

follow^g facts with regard to abstinence sh^d not be forgotten 1st The Indians abstain much from food previous to a battle; hence so few of their wounds prove fatal. 2^d Animals fasting sometime before their death, are after death less disposed to putrifaction 3^d We always bear fatigue after a vegetable diet or abstinence; better than when we eat plentifully of animal food.

5th Rest abstracts the stimulus of muscular motion

6th Darkness abstracts the stimulus of light.

7th Silence, the stimulus of sound

The abstraction of excitement should always be performed in a gradual manner, hence the saying "Natura nihil fit per saltem".

Here we will premise a few propositions.

1st I believe there is an action of specific stimuli

2^d That stimuli act on the whole system, thro' a particular medium - Bowels, mouth &c. Here the stomach is the great medium thro' w^h medicines act on the whole system, & it possesses the greatest sympathy of any other part of the body. It may be compared to the regulator of a watch.

3^d There are Medicines which act on Sensibility

lity, as Camphor Mustard &c. Some wh act on irritability as digitalis &c and some which act on both, as Opium & Bark.—

4th There are medicines wh enter the blood, & are deprived of their virtues in their first passage thro' it, Mustard acts on the Sensibility & not on the irritability.—

5th There are some wh are deprived of their medicinal qualities by passing thro' the body.—

6th That the different parts of the system are capable of receiving more than one Stimulus, even such as are of opposite force at the same time.—

Those Sedatives wh act indirectly are such as open the bowels, these I shall divide into 3 Classes 1st Lenient as Crystals of Tartar, Nation Clysters such as act only by their quantity. Castor oil, manna, vitriol with the different Salts &c—

2d The active, as Rhubarb Jalap Calomel &c

3d Drastic Purges as Gamboge, Scammony aloes &c

Cathartics are indicated

1st By a distention of the bowels with Foces for this No 1 should be used.

2d For Complaints of the head for this No 1 —

3° In Congestion of any part of the Viscera, for this N° 1
4" In all cases in wh the bowels are unable to perform their functions, here N° 3 or Drastic are necessary
5" In all diseases of the Liver & Spleen for this N° 1 or 2
6" In all diseases of the Skin here N° 1 or 2 are proper
7" In dryness of the Skin from the excitem^t of the Capillary vessels, for this N° 1 or 2 — In the Yellow Fever 1793 they never failed to produce Sweats. —
8" In Plethora for this N° 2 —
9" In all dropsical effusions, with great morbid excitem^t — they are proper by lessening the excitement, & producing absorption — for this N° 2 or 3 —
10" In Obstructions of the Hemorrhoidal vessels; for this N° 1, or the Clement: —
11" In obstinate obstructions of the bowels, for this N° 1, 2 or 3. —

Here it will be proper to remark that Purgatives in a smaller quantity will not operate after a larger quantity has been used, & that a greater quantity should be given to have the same effect, if previously the System has been habituated to the same medicines. As an alterative they should be given in small doses, so as

as to produce an Artificial Diarrhoa. When it is necessary to continue purges a great length of time they ought be varied. No solid food should be taken during the operation of Purges, & they are not so certain in their operation if liquids be copiously given. The Mild Purgatives induce sweat more speedily than the drastic. Clysters act by their quantity & quality.

Purgatives are forbidden in the follow.g cases 1st In diseases of weak morbid excitement. 2° In the Typhus state of Fevers. 3° In hemorrhages of the bowels 4th In the first stage of Colica Pictonum.

Emetics. These are divided into 4 Classes - the Prompt, Mild Powerful & Nauseating

1st Those which act promptly, as tickling the throat with a feather, putting the finger down the throat, warm water, White vitriol &c

2° Those wh act feebly but certainly as Ipecacuana & Squills

3° Those wh act forcibly on the Stomach, as Antim: Tart: Turbith Mineral &c

4th Those wh act by nauseating the Stomach as Digitalis & Tobacco which last may excite vomiting

* here they act by exciting the absorbents —

miting by being moistened with Brandy & applied externally

Emetics are Indicated –

1st In cases of swallowing large doses of Opium & Arsenic. In these cases the 1st Class shd be used I have twice prevented death by these means

2d In discharging of Bile & Mucus – here 2d Class

3d In a languid state of the Stomach, here the 2d Class should be used

4th In Morbid diseases of the head in consequence of its sympathizing with the Stomach – here the 2d or 3d Class shd be used –

5th In Tumors in remote parts of the body as Buboes &c here the 2d Class or the 3d *

6th In Dropsical Effusions here the 2 or 3d Class

7th In an Oppression of the Lungs as in Catarh Pulmonary Consumptn Cynanche Trachealis &c but when the Lungs are affected with disease they shd not be used; in the former, the 2d Class

8th In dryness of the Skin here the 2 or 3 Class is proper by promoting sweats

9th In the forming state of Malignant & Contagious fever – 2d & 3d Class proper here. They act in

* Children require more powerful Emetics than Adults, as their stomachs are lined with Mucus. They are useful in Diarrhoea & some cases of Dysentery. —

in 2 ways - 1st By equalizing excitement & 2d by discharging the seeds of the disease

10th They are more powerful & effectual in diseases of Children than in Adults. *

In the Exhibition of Emetics, you must observe - 1st To give them in divided doses, in order that they may not operate too powerfully upon your patients - 2d That as little water be given as possible when we want a prompt effect 3d. That they operate more forcibly & Certainly in the morning; the system being at that time predisposed to sickness. 4th Never to suffer them to operate while the Patient is recumbent, because by this means we prevent spasm. 5th That their operation is checked by Laudanum, or a spoonful of Salt in a pint of water

Emetics are forbidden

1st In violent inflammations & Congestions of the head & bowels, 2d In too feeble action of the system 3d In advanced stages of Pregnancy. 4th In ruptures of all kinds 5th In low chronic fevers & general debility succeeding acute diseases.

Diaphoretics

* These may be called external Sweats
# These I call Stomach Sweats.

Diaphoretics increase the discharge of the vitiated humours thro' the pores of the skin & act either directly or indirectly.—

1st Those which act directly on the skin are Pediluvia, baths of warm water, vapour bath, clay of the heat of the body, & azote applied by covering the head with a blanket *

2d Those which act indirectly & produce their effects by increasing the action of the heart & arteries, are exercise to promote sweat, cold water this acts in a twofold way. 1st By reducing the immediate action of the Capillaries to the sweating point — 2d By the reaction of the skin when it is below this point.—

Diaphoretics act on the Capillary vessels indirectly thro' the Medium of the Stomach

1st By nauseating as antim: Tart: & 2d without nauseating as Nitre Eupatorium, Cold water # & when the Capillary vessels are above the sweating point. These last act on the skin by means of continuous sympathy. Diaphoretics act 1st When the Capillaries are above the sweating point by diminishing the excitement

ment directly. 2° When they are below it, by increasing it either directly or indirectly. 3° By their action being determined to the surface of the body, as Dover's powder, Vinegar, Ardent Spts Eupatorium &c 4th By the Stimulus of distention produced by warm liquids of every kind. Each of these Methods are necessary & are often indicated

1st To discharge diseases from the Blood. The Miasmata exciting fever often attempt to escape through the pores of the Skin. I have heard of a Young man in whom the Syphilis went off by the Capillaries. The poison of Animals also sometimes escapes from the blood through the skin by means of Diaphoretics.

2° They are indicated when the symptoms are so mild as not to require V.S.

3° In Centrifugal diseases, as Rheumatism Gout &c when they affect the limbs. Here I take notice that diseases are called Centrifugal when they affect the extremities, & Centripetal when they affect the body, as Colic Dysentery &c

4th In dropsical swellings when the symptoms are below the sweating Point.

5th

5th In fevers in wh there is a disposition to sweat, tho excessive sweating is sometimes hurtful.

The Follow^g Rules should be observed in the exhibition of Diaphoretics.

1st Perspiration is most easily induced in bed To excite it flannel sh^d be worn next the Skin, more perspiration will be excited in 9 hours in bed than in 15 out of bed.

2^d Subdivided Meals because the Stomach being alternately empty & full is unfriendly to Perspiration

3^d Great attention is to be paid to the heat of the body, because sweat cannot be induced with safety when the heat of the body is above 108 of Fahrenheits Thermometer.

4th The Temperature of the drinks sh^d be warm when the heat of the system is below, & cold when above 108

5th Diaphoretics are to be regulated by the stage of the disease.

6th They sh^d be suspended occasionally & used moderately least exhaustion sh^d take place

7th Care sh^d be taken to have the linen &c

bed Clothes of the Patient often changed, because sweating is sometimes checked by a Stiff Shirt.

8th It is common to give diluting drinks in cases of redundant fluids, this practice is improper, But in cases of poison it shd be done

9th Guard against cold & avoid Purging & Blistering, when you prescribe Diaphoretics, unless the urgency of the Case require it

Diaphoretics are Forbidden 1st In highly inflammatory cases 2d In cases of weak mob. & excitement 3d When the weaken without relieving.

Diuretics are medicines which increase the urine & are 1st Cold air applied to the body when a little heated, going into a Cellar, climbing up Stairs, hearing a stream of fluid running from a Barrel, cold water applied to the body, abstinence fear, onions applied to the pubes. These I shall call external Diuretics.

2d Diluting drinks, such as Melon seed tea White Carrot seed tea, & parsley tea Dr Caldwell cured a Patient of dropsy with the parsley tea after tapping had failed This Class I shall call diluents

3d Those wh act on the Kidneys by sympa-
thy

they with the Stomach as Salt of Tartar Neutral Salts Neg: Alkali &c These are indicated when the Kidnies refuse to perform their office when they are suffocated with Morbid Excitement &c

Diuretics are forbidden in all cases where there is an inflammation of the Kidnies

Sialagogues are Evacuents & Revulsives

Evacuents act first by discharging fluids from parts contiguous to the Salivary Glands, such as Tobacco Angelica &c

2° By discharging fluids from the whole body in the form of Saliva. Such as Mercury Arsenic Sacch: Sat: &c Mercury acts both as an evacuent & revulsive. It is one of the most powerful Articles of the M: Med: yet its operation is disagreeable & loathsome. It has been said that Mercury is not only a loathsome, but an unnatural remedie. But this is not the case, for mercury is the first remedy of Nature, if we admit that sore mouths & Aptho are the first diseases of Children. Hence when children sleep much, the Gossips say that they are sleeping for a sore mouth, & if examined at this time they

they will be found to have a fever. A determination to the mouth & throat is frequently the disease of Children, or rather the attempt of Nature to cure a disease as Scarlatina Anginosa Cynanche Trachealis &c

In Adults spontaneous salivation sometimes accompanies fever & sometimes the Small pox, & is generally a symptom of a favourable termination. Death frequently succeeds this useful & salutary remedy, if it be suddenly suppressed. If a Cough & salivation attend patients with the Yellow Fever, they generally recover. Sydenham mentions a Malignant fever in 1767 & 1771, being cured by a spontaneous Salivation. A spontaneous salivation has suddenly cured a Dysentery & Gout. A spitting has occurred in Mania & was called by the old writers Sputatoria. It marks the favourable termination of Autumnal fevers. It is therefore strange that it has not been used long ago in these cases, & that we do not always excite it when needful, that we so often excite it when not needful, & that we do not destroy life by it as nature does

in

in Apho Malignt sore throat &c

The Auxillaries to excite Salivation are 1st Cf. this is of much importance. 2d Low diet 3d Emetics 4th Opium. This assists by inducing costiveness 5th Cold bath, & ice applied to the head. Dr Armstrong of St Thills used the cold bath to assist the Operation of Mercury. I have used it as well as other cold applications Dr Bloomfield used the Cold shower bath & the partial cold bath as auxillaries to Mercury in producing Salivation. Dr Chisolm tells us that Mercury acts soonest in moist weather. 6th Mercury is greatly assisted in producing a Salivation when combined with Jallap. 7th with Antimonial powders 8th with frictions of Mercurial Ointment. 9th Nitrated or Muriated Mercury to be tried with friction Calomel & Corrosive Sublimate. When we wish to give Mercury secretly we may put Calomel upon bread & butter & let the patient eat it. It is not necessary in order to produce a revulsion that a profuse Salivation be induced or even a Ptyalism & in some cases not even a soreness of the

* In obstructions of the viscera it is often proper not to give Calomel in such doses as to produce salivation directly. I have generally first made the mouth sore, thus making it act as an alterative. —

the gums. —

For restraining a Salivation, Vf. Opium, Purges Blisters Oils & Borax held in the Mouth —

In Philadelphia Mercury salivates 1 out of 4 in the W Indies 11 out of 12 in the Y Fever. This must be owing to less morbid action existing in the diseases of the W. Indies than in Philadelphia

A Salivation is indicated 1st In Malignt. fevers & such other fevers as are not remedied by other means. 2d In Morbid action of the head, lungs, liver Spleen, Kidnies &c 3d In Diarrhoea & Dysentery. 4th In Syphilis, 5th In Visceral obstructions. 6th In Old Ulcers both external & internal wh have resisted the powers of other Medicines 7th in Convulsive diseases as Tetanus* &c —

Salivation is forbidden 1st In highly excited states of fever. 2d In low exhausted states of fever. 3d In children under 6 years old. 4th In persons above 60. 5th In those having many decayed teeth. 6th In diseases tending rapidly to a Crisis. Mercury will never produce gangrene when the system is sufficiently reduced, or after a salivation has taken place. It is to be regretted

that

that mercury is such a loathsome medicine, but man first sinned with his mouth, & to his mouth must medicines be administered to remove that sin. —

Errhines These act by depleting from the nose & are of 2 kinds. 1st Those wh deplete from the nose without producing sneezing, such as Sal: Ammon: Turbith Mineral &c 2d Those wh deplete from the nose & produce sneezing as Tobacco &c

Expectorants are 1st Demulcents as Flax-seed Tea, Horse radish &c

2d Emetics or Nauseating Medicines as Squills &c

3d Volatile alkali, Salts, Smoke of Tar, Beeswax Terin &c

Expectorants are indicated in Pneumony, Catarrh, Asthma Phthisis Pulmonalis &c — here the 2d & 3d Class shd be used. Also in weak morbid action of the Lungs, here the 3d class is required. —

Emenagogues shd be administered according to the state of the System. In diseases of weak Morbid action, Chalybeates & exercise shd be used In this last case I have generally used Steel wh I believe fails only when given improperly.

aloes

Aloes & Madder are scarcely worthy of our notice as Emenagogues. —

Blisters. — These act 1st Slowly as Canthardides & the bark of certain trees 2d Suddenly as boiling water. They are indicated

1st In general diseases, here the 1st Class are to be used — 2d In local Congestions of the head bowels &c here the 1st class — 3d In sudden Congestions here the 2d Class is to be preferred. —

The Follow'g Rules are to be observed in using Blisters

1st They shd remain on until they produce a serous discharge

2d When applied to the head, they shd remain 24 hours. —

3d As Blisters never discharge much after the second dressing new ones shd be applied if necessary.

Blisters are Forbidden 1st In great morbid excitemt 2d In weak morb: excitemt 3d In habits highly irritable & persons liable to suffer from Strangury. 4th In Pregnancy. —

There appears to be a blistering point in morbid excitemt above or below wh it is improper to blister & this point must be discovered by the pulse.

Yours

* In suffocated excitement medicines shd be applied gradually, blood abstracted in but small quantity. Cold water applied externally is always improper in the absence of heat - In suffocated excitement there is very little

Issues are medicines to lessen the quantity of fluids gradually, as Setons, Caustics, perpetual blisters &c. Issues are indicated 1st when the gradual abstraction of morb: excitemt is required. 2° In local Congestions 3° In Cutaneous eruptions of the face or parts necessary to motion. Issues act directly or indirectly by equalizing morbid excitement, & when the system has been habituated to their use they should be relinquished with caution.* I have thus mentioned the remedies for disease in an open & sensible form.

We come next to the 2° Class viz.

Stimulants. These I shall divide into stimulants properly so called, or those wh remove morbid action by exciting a stronger & less diseased action in the affected part or in some other part of the body, or wh remove morbid action fm one part of the body, by exciting in another part less essential to life; & into Tonics or other medicines wh prevent the recurrence of disease by removing predisposing debility. Both of these act by converting excitability into excitement when they cure without abstracting any of the fluids

of

of the body. — Wine & Opium are diffusible stimuli, but all stimuli are more or less difficult in their action on the whole system. Here I exclude those sedatives wh destroy irritability or morbid excitement by force, such as Cerussa acetata, Digitalis & Miasma, wh resembles more the breaking down a door to get into a house than simply turning the key. But depletion shd be used in most cases in preference to such remedies, altho' depletion is certainly useful in hemorrhages yet sugar of Lead often does good after it fails. In this case the Lead acts by lessening the excitability. Consumption when cured by Opium & Digitalis often returns. — Stimuli to reduce great morbid action act as exercise & labour by reducing excitability; but in general they do great violence to the system & are much inferior to depleting remedies. They act more safely in muscular than in arterial diseases. Some diseases are however beyond the reach of depleting remedies, as Tetanus & the morbid grades of bilious fevers Here the Opium & Bark cure by prostrating the system below morbid action & thereby wasting excitability

excitability. A Question now arises, When are Stimulants to be used? This must be regulated by the stage of the disease, the state of the system & more particularly by the Pulse. When they occasion heat, a frequent & slow pulse, they are improper. If they produce none of the above symptoms, but impart a fulness & slowness, they may be used with advantage, & the saying that there is a time for all things is in nothing so striking as in Medicine.— The manner of giving Stimuli is in rotation. I once cured a case of Tetanus by giving 1st Wine 2d Bark, 3d Opium 4th Brandy & water & then the wine again, but more of this hereafter.—

Of those Medicines wh remove morbid action by exciting a Stronger & less diseased action in the affected or some other part of the body. Stimulants are of this class & shd be preceded by reducing the System below their by means of depletion. But notwithstandg this may hold good as a general Rule; yet there are many exceptions to it. 1st When it is necessary to destroy irritability in Hemorrhages by Sach: Lat:

&

& in other cases by Digitalis. 2° When we dissipate excitability as in Tetanus. When excitability is accumulated begin with small doses of stimulating medicines, & observe at the same time to defend the system from other stimuli, as light, conversation exercise &c For these by hurrying on the system will defeat the intention of the medicine. In Pleurisy after bleeding once or twice endeavour to suspend the cough by opium; but when there is no accumulation of excitability, begin with large doses of stimulating medicines, after depletion especially in Chronic diseases & in the beginning of Jail Fever. wh attacks excitability nearly exhausted by indirect debility.

Do not combine too many stimulating medicines, for they generally act best in a simple form, but to this there are some exceptions use them in succession or rotation, for the system will often become insensible to one stimulus; whilst another of weak action will affect it. Liquid: Laud: may be successful when Opium fails & v-versa. Dr Dewitt tells us that a pill of Opium made 6 months before wife

* Generally when a Medicine is exhibited per Anum the Dose sh^d be quadruple

will sometimes do good, when a recent one does harm; it is probable that no 2 Medicines even of the same class exert precisely the same effects The Stomach will sometimes bear Quassia & not Columbo & vice versa. Chronic diseases as Intermittents &c require Stimulants. Frequently change the place to wh stimuli are to be applied When the Stomach is inured to them, apply them to the Skin wh still retains its sensibility, as Blisters to the abdomen & In chewing Tobacco only on one side of the mouth, that side is much less easily affected by the Tobacco than the other side wh is unaccustomed to it. Even when snuff is taken into one Nostril only at a time, it becomes at length more insensible to the effects of the snuff than the other. —

Opium when ineffectual in large doses in the Stomach is frequently active when thrown into the intestines. Bark after becoming inert in the Stomach is often active when injected into the bowels, or externally applied to the skin in the form of the Quilted Jacket.* Electricity when applied to the breast of a cock

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is said to revive & cure the effects produced by it on the head. Opium obviates the effects of Opium when applied in another manner from the first. Mercury obviates the effects of Mercury, tho' the practice is not safe. —

Having admitted that there were specific stimuli we are obliged to admit an indefinite number of them; but those that are feeble from the various changes of the irritability of the system. An Emetic when the Stomach has lost its sensibility is inert; because its muscular fibres do not vibrate in unison with the medicine. Weak stimuli sometimes act when stronger fail.

Strong Purges destroy the Contractile powers of the Stomach; when weak ones act by assisting in the recovery of that power. I once knew a Lady who could not hear the noise made by the firing of Cannon; but could distinctly hear the noise made by pushing a pin thro' a piece of paper. I also knew a Gentleman with Hemiplegia who was not the least affected by sticking pins in the affected part, but by touching it lightly with a feather would be immediately

diately convulsed. —

In all Chronic cases Stimulants sh^d be given in the Morning, because at this time the excitability is more accumulated. Baron Houlley says there is a certain relationship kept up between the different Stimuli according as they are given in succession. Alkali for instance, will restore the excitability of the Stomach when dissipated by acids, but acids will not restore it when dissipated by the Alkalies. Do the alkalies act by exciting the dormant faculty of the Stomach?

Medicines w^h remove morbid action in a part by exciting it in another less essential to life. Many Physicians do this without knowing it. A Headache is cured by a Diarrhoa Natural hemorrhages by V.S. Morbid action in the viscera by blisters; Dropsy by diuretics acting on the Kidnies. Morbid action of the Lungs by Emetics acting on the Stomach. Apoplexy by a knobbing on the back, the Morbid action being thus transferred. Hartley tells us that he gave a dog Nux Vomica & then severely

whipped

* In Consumptn it is sometimes proper to create Morbid action in the brain by means of Opium or Spirits. Here it is better to bring on derangement in the brain it is more essential to life than the lungs, than to let disease lie stationary in the lungs, doing more irreparable mischief. Intoxication sometimes entirely removes Consumption

whipped him & the Nux Vomica had no effect, owing to the impression on the Skin predominating in force over that of the Stomach. Observe now that there is but one impression felt among those of unequal force & that is the strongest. —

1st You must reduce the morbid action below the stimulating point, that the medicine may at once predominate over the remaining morbid action. I observe again that there are exciting depleting blistering & sweating points, wh it is as necessary for the Physician to know, as that a mariner sh^d know the signs wh discover a port

2^d Take Care that the part in wh you excite morbid action be less essential to life than the part from wh you intend to remove it. — To this there are 3 exceptions — 1st In Convulsive Epilepsy delirium has been induced by opium with advantage * 2^d Tetanus is often cured by drunkenness. 3^d In Pleurisy it is most effectual to put a blister on the affected part, & in fevers it is sometimes necessary to bring on hunger to such a degree as to endanger life in order to accumulate excitability in the

Stomach

* it is proper to stimulate the great toe which has already been attacked by it in preference to the other. —

Stomach.

3° To prevent unsuccessful practice enquire into the peculiarities of the Patient, his habitual diseases &c but in dangerous cases, little attention is requisite to the effects of Medicines. —

4th When the 2° Morbid action wh is excited becomes languid a 3° must be excited, because pain from habit becomes pleasurable

5th Attend to association in diseases, * instance, we stimulate the feet in Gout because they are more predisposed to the disease. —

In stimulants I include the passions such as anger & terror, but the agreeable passions most often cure diseases by prepondering over painful impressions. I knew a man who could relieve himself at pleasure from the pains of Rheumatism by shaving. Pronouncing Popular names words & events sometimes relieve pain. —

Medicines which prevent the recurrence of diseases by removing predisposing & succeeding debility. These I shall call Tonics & the rules necessary to be observed in their exhibition are the following

1st

* Debility is constantly attended with considerable relaxation of the bloodvessels. —

1st They are always to be exhibited in less doses than are sufficient to overcome the Morbid action

2d In your choice of Tonics always prefer such as are durable in their operation, as Aliment, in using wh observe the follow^g rules. —

1st Always prefer that wh is agreeable to the taste & the Stomach & tho there sh^d be no appetite still continue to give the Aliment; for who would wait for an appetite to give medicine?

2d Recommend to debilitated persons to eat 5 or 6 times a day & once or twice at night, if sleepless, for the Stomach of a debilitated person is like a School boy, who if he be not bury is apt to be doing harm. A full meal however like poison sh^d be avoided. *

3d Accommodate the diet to the excitability of the System

4th Solid food sh^d be preferred as it makes the most flesh, while liquid food makes the most fat.

5th The less nourishing is preferable to that wh is more so in cases of debility. Lean meat is preferable to fresh on this account

6th There are cases in wh only one kind of food

* When it is necessary to confine a Patient to a particular Article of diet, we must not give it up too soon because it disagrees a little with the Stomach at first, after a while it & the Stomach will become acquainted with each other. —

food is required. A Gentleman in this City affected with violent stomach Complaints was perfectly cured by boiled turnips alone Boiled Carrots are said to cure the Asthma. — Bread & Milk the Gout. A diet solely of fish, has cured certain inflammatory diseases. The Stomach prefers a homogenious food. — Beef and Mutton have cured Dyspepsia, & oysters visceral obstructions

7th A Diet by weight & Measure of the same aliment cures diseases. Dr Taylor was cured of Epilepsy, by the milk of a Cow fed in summer on grass, & in the winter on hay, but was disordered as soon as he ate of the milk taken from a cow wh was fed on grain. — *

8th Uniform hours in eating are strictly necessary the sooner after leaving bed in the morning the better. —

Tonics comprehend 3 kinds of Drinks

1st Malt liquors, 2d Different wines as Madeira Sherry &c 3d Low wines as Malaga Port Champaigne & Cider. You see I don't include Ardt Spirits in this class, for a man had better die

die than use this detestable Brunonian remedy In Chronic cases they are always injurious, as their use will finally create a love for them wh- when confirmed by habit nothing can eradicate

4" Cold & Warm bathe remove debility, & diseases of weak morbid action. The warm bath sh^d be used between 12 & 1 o'clock only Temperature of the Tepid is 96, the warm 104 & the hot bath 108° of Fahrenheit. The warm bath is very much used in Italy. The Cold bath acts indirectly as a Tonic abstracting heat & accumulating excitability; & dressing after the use of the Cold bath converts the excitability into excitement To be the more effectual it sh^d be used after the warm bath. -

I shall now make a few observations on the Cold

1st It sh^d be preceded by the warm.

2° It sh^d be temperate, when the water is cold it sh^d be warmed & vice versa

3° It sh^d be used 2, 3, or 4 times a day

4" In a warm room during the winter

5 Exercise & friction sh^d succeed it -

5" Exercise holds a great rank in the Class of Tonics as obviating simple debility & may be divided

divided into passive & active. The former includes friction, rocking in a cradle, chamber horse, swinging sailing &c. The latter are walking, labour & riding on horseback is partly active, & partly passive.

The following are the rules to be observed in the use of Exercise. 1st In great debility begin first with the passive as friction. The effects of wh in overcoming debility are wonderful. It increases the action of the bloodvessels & muscles, also secretion as well as sensation. The Chinese are remarkably fond of this remedy & carry it so far as to have professed frictors as we have barbers. The exercise of the hands as in Shuttle cock, the good Effects of this we daily see in Taylors Shoemakers Ladies &c. Swinging sailing & riding in a Carriage are the next stage of exercise, as they occur in the open air. Swinging is useful when the patient is not able to take other exercise. It was recommended by Dr Hogarth & J. Smith in Consumption. I cured one case of this completely by swinging. Sailing creates a disease in the Stomach & thereby carries off the seeds & effects of the primary disease. It also keeps up a perpetual conflict between the passions.

Sailors

Sailors are generally healthy when the vessel is kept clean. The balloon only used formerly in time of war, may yet come to be used in cases of debility. Partial Exercise as before observed removes debility. A person held one hand in water at 62 & by exercising the other it rose to 68 after it had risen only to 64 by the warmth of the house. Riding on horseback is highly recommended in cases of Consumption. It expends less excitability than walking, which may be used in cases where it is necessary to expend much excitability. 2° Avoid all fatigue. 3° Accommodate it to the state of debility. 4" The same rule may be observed in the use of exercise as in eating, never take too much at a meal so as to render you unable to take more immediately afterwards without injury. Patients are often in this respect ungovernable. 5" Exercise ought never be prescribed before breakfast or immediately after a Meal. Different kinds of exercise suit different diseases, as exercising the muscles of the back in Nephritis. 6" Debility is to be removed by a change of occupation 7" Travelling is an agreeable & useful stimulus for the exercise

* It removes from the enquiries of friends after the health of the sick, which enquiries often do harm. I have known a return of an intermittent induced by a friend asking the Patient 7 hours after the usual return of the fever, whether he had escaped it. —

exercise which attends it, the change of air & succession of new objects.* 8" Change of Climate & of former associations are useful in nervous diseases, as Hypochondriasis Hysteria & Epilepsy stone & even Convulsions are cured by it. Sheep are benefited by a change of Climate; & men prolong their lives by the change, especially old people when it is from a colder to a warmer one. —
9th An uniform Climate for Invalids, tho' different from that they have been accustomed to, is of considerable service to them. In certain cases of debility, a warm room from 70 to 79 day & night sh^d be used, & in order to keep the room from being too warm, a vessel of water sh^d be kept upon the stove, w^h will evaporate at a certain degree of heat & cool the air of the room by its vapour.
10" Change of diet & manners frequently of great use
11" Cheerful company & agreeable reading obviate debility
12" Advise convalescents to go to bed early at a fixed hour, & to rise at the same hour every morning.
13" Strictly forbid their going into the night air, or moist weather, or gratifying the venereal appetite.

14

* They act as Tonics by the ingredients they contain by the degree of temperature & from the quantity taken in at a time. Purging mineral waters are not Tonics consequently I am not speaking of them here - Mineral waters cannot well be imitated by art. They often do ~~good~~ harm at first but after a while much good.

14th Accommodate their dress to the weather. — Their dress had better be 3 degrees to hot than 1 too cold It should be loose, no ligatures, flannel next the skin, & they shd sleep between the Blankets

15th They shd sleep on a Mattrass, as a soft bed induces indirect debility, & alternately on the sides, never on the back in debility; because the night mare frequently attacks in that posture.

Medicines which remove debility Of these the Bark & Steel are the best in direct debility. Strong drinks sometimes cures diseases by knocking out excitability, rousing dormant excitement & afterwards locking it up in the Muscles. The Indians when fatigued, will rest themselves by carrying a large log sometimes a mile or two & then laying it aside. —

Mineral Waters do great harm in diseases of increased arterial action; but in Nervous bowel complaints & they are very useful.*

Sea air is also a Stimulant & may be prescribed with the same precaution as Mineral Waters

Matrimony is also a powerful Stimulus. —

Mercury in obstinate obstructions. from weak

weak & languid action is one of our best remedies, even when the more agreeable fail. In the use of Tonics always attend to the state of the System, for debility is the next door neighbour to disease & sometimes even worse than disease. There is a debility below a certain point where the patient is able to walk as in Syncope Palsy, Apoplexy, in wh excitability is highly accumulated, here gentle & weak stimuli are proper. A few drops of cold water, friction, Smell of burnt feathers &c will often do more service than the most violent medicines. Friction is generally better in Palsy than the more powerful Stimuli. —

When excitability & excitement are nearly exhausted as occurs in the first Stage of Malignt fevers & the last in the Chronic diseases, the most powerful Stimuli are necessary as Caustic red hot iron, boiling water, fire coal &c. But when total destruction of a part takes place, wh in animal matter is called gangrene, the stimuli shd be applied around the part, as Turpentine hot poultices blisters &c with the internal use of Bark wine & Opium. —

Tonics

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Tonics are exhibited 1st By the Mouth 2d by injection 3d by the Nose & 4th Externally. The Mouth is the best channel for medicine. Opium may be given by way of Clyster, in this way it is generally necessary to administer 3 times the quantity of that taken by the Stomach, to be as effectual. Spirits Camphor Volatile Salts &c may be applied to the nose. Dr Eliotholm of Montpelier with camphor & Opium externally applied cured obstructed Menses, with Digitalis, Dropsy; & with Bark & Spts. all kinds of Fevers. In this case I think the friction of the hand, the principal means of cure. I have known Camphor & Opium dissolved in Sweet oil to act like a charm in pains of the knees, when externally applied to the part. Shoemakers wax & Burgundy pitch applied to the soles of the feet relieves head ache. Spirits to the Abdomen relieve Colic; sweet oil, Ascites; & when rubbed over the whole body has cured Malignt. fever; a warm hand has cured a Pleuritic pain. The Manner in wh these medicines act is 1st By friction 2d By exciting a determination of the fluids to the part

part. 3° By sympathy. Sometimes they all three combine. The parts to which these medicines may be applied, are the Stomach, belly inside of the thighs, near the perineum soles of the feet, arm pits, back bone & anus. —

There are some who have a susceptibility to one class of medicines in consequence of an Idiosyncrasy

Medicines wh remove diseases by abstracting redundant & foreign matters from the body, which offend by their quantity or quality. These matters are mucus worms &c; and the medicines, vomits Purges, Diuretics, Anthelmintics Deobstruents Sialagogues &c of wh we have spoken before.

Medicines wh remove diseases by mixing with & thus destroying matters wh offend by their quality. 1st Magnesia destroys acids in the Stomach by uniting with & neutralizing them. 2° Bilious & renal Calculi, by lime water, vegetable alkali, vitriolic acid &c 3° The Itch is cured by Sulphur & Mercury the venereal disease by Mercury. Demulcents

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Medicines wh remove diseases by mixing with & thus destroying matters wh offend by their quality. 1st Magnesia destroys acids in the Stomach by uniting with & neutralizing them. 2° Bilious & Renal Calculi, by lime water, vegetable alkali, vitriolic acid &c 3° The Itch is cured by Sulphur & Mercury the venereal disease by Mercury. Demulcents

cents are used to allay cough catarrh &c They are flaxseed tea, decoction of bran, mallows sulphur mercury &c

Medicines which cure diseases by removing obstructions. These as I said before are not the cause but the effects of disease. They produce disease by reacting. & occur most frequently in the viscera & Lymphatic glands; thus we see morbid debility, disease & obstructions at the same time. These medicines are certain Tonics called Deobstruents, as bark, steel, Mercury, Arsenic Cold Bath, external applications, local bleeding, fear acts powerfully, & I think it is in this way that the Royal touch acts. I will conclude this subject with observing that obstructions are the effects of acute or chronic inflammation & where V.S. has been used in time they rarely occur.

Medicines which are supposed to cure diseases by changing the Quality of the fluids, or the texture of the Solids. These are the gaspes with wh I am but little acquainted, & as Dr Beddoes who once said so much about them, has

has now rejected them; I think we may regard them as useless.

Medicines for Relieving Pain. As pain is the effect of disease, the remedies shⁿ be proportioned & accomodated to the state of the system. Pain is sometimes a remedy & in this case shⁿ not be relieved.

1st Opium in large doses relieves pain, by inducing indirect debility, & thus reducing the system to the sleeping point. In giving large doses care shⁿ be taken that the seat of the disease, or pain be not in a part where effusions are dangerous, as in the Brain &c.

2d Bf relieves pain as in Pleurisy, headache Gout, Rheumatism Colic &c.

3d Fasting relieves pain. Dr Priestly informed me that a Criminal who was put upon the torturing Machine, bore the pain with fortitude in consequence of fasting 2 or 3 days before. Those who die of famine never feel pain after the first 4 or 5 days in consequence of losing their sensibility at this time.

4th Cold water eases pain, when there is great morbid

morbid action This was often experienced in the Y. Fever 93; when given by way of injection, it acts like a charm in hemorrhoids.—

5" Warm water acts as an anodyne in cases of Morbid action; Pediluvium often relieves a slight head ache.—

6" Demulcents relieve pain as poultices, sweet oil, frictions of the hand. A sheepskin or the maw of a Cow on the Stomach frequently cures Colic in Children.—

7" Fear chases away pain when accompanied wth great morbid action.—

8th Cheerful company, hallowing Gnashing the teeth & crying, all mitigate pain. Women bear child birth much better by Crying.—

9" Whipping relieves pain; for instance the dog that was whipped after taking a large dose of Nux Vomica by Dr. Hartley. He also gave Arsenic to another, wth was also whipped & discovered no symptoms of pain f^m the Arsenic.—

10" Sounds relieve pain. I once heard of a man who was relieved of the pain of the Gout by making his servants sing very loud. It is in

in consequence of this that we seldom see many children cry at the same time. The Child that cries the loudest generally silences the rest; their pain being in a measure relieved

11" Employment both of body & mind; General Koscinsko relieved himself of pain in Petersburg, by turning himself around. —

12" By Cupping

13" Cold water when pain proceeds f^m great thirst

14" Sulphur when pressed between the Fingers cures muscular spasm Mechanically. —

15" Metallic or other sharp pointed instruments.

16 Animal Electricity & Magnetism. —

17" Counting a hundred backwards. —

The Next & last Article in our Therapeutics, is the <u>Means of Obtaining Longevity</u>. This is not foreign to our subject. In life there is a constant tendency to death, & longevity is only obtained by accomodating excitement to excitability, or the stimuli w^h support life to the excitability The same rules w^h preserve life do not answer in all cases, but we are to be regulated by the different states of the system — Let clothing, diet

diet, drinks, amusements, exercise &c be accomodated to the different habits & state of the system as varied by age &c.

I cannot dismiss this subject without expressing my regret that there are so few books which are not written empirically; few are written to accomodate remedies to the different states of the system, hence the many contradictions in them. Few medicines act alike in the same disease at different times; thus we see that Opium at one time relieves pain & at another increases it, it is thus with all medicines. In short medicines are only relatively good, that is, they only do good when suited to the different states of the system. When I hear that V.S. is prescribed in Fever or in Cynanche Trachealis, without attention to the state of the system, I feel as if I were listening to regular bred Quackery. Such Physicians remind me of the Bermudian Sailor who on his passage to the West Indies threw shingles into the sea, in order to find his way more easily back. As well might we expect that the

the Alphabet when jumbled in a Box would fall out in the form of an Epic Poem, as that medicines would cure diseases when thrown into the System, without any regard to the symptoms & stages of the disease, or in short to the state of the System.

Here then Gentlemen we take our leave of Therapeutics, & come next in order to the fourth & last subject — viz The Practice of Medicine.

Finis

Dr Conn Rf [illegible]

[illegible] 38

[illegible] 4

water 12 pts boiled 10 [illegible]

Strain 4 [illegible] 3 [illegible]

1 Raw egg [illegible] upon [illegible]

Stir well & strain 24 hours

pour off & keep well stopped